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LONDON, CANADA

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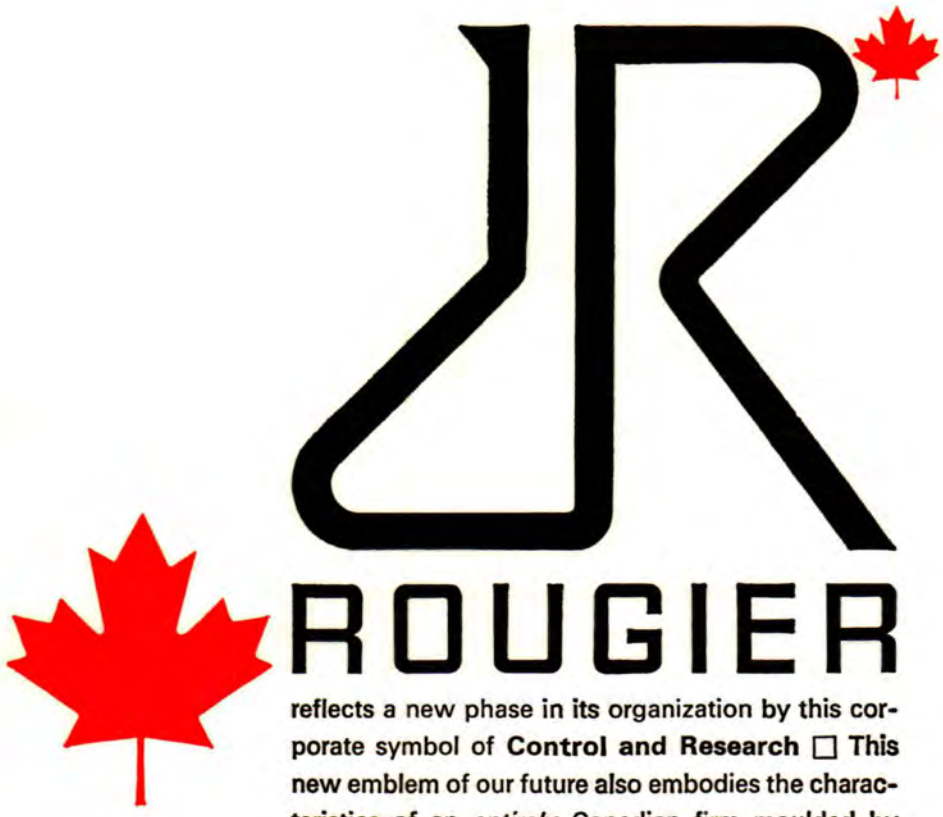
G. S. BURTON, M.D.C.M. *Medical Superintendent.*

Contents



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MEDICAL JOURNAL

VOL. 38: NO. 2, DECEMBER, 1967

THE UNIVERSITY OF WESTERN ONTARIO

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CONTRIBUTIONS will be accepted with the understanding that they are made solely to this publication. Articles should be of practical value to students and medical practitioners. Original research work is most welcome. Articles should not be longer than 3,000 words, and we will more readily accept those of shorter length. Introduction and summary of conclusions, should be included. Drawings and photographs will be accepted, the former to be in black ink and drawn clearly on white cardboard.

All articles submitted must be typewritten, on one side of paper only, with double spacing and two inch margins on each side. Canadian Press (American) spelling must be adhered to. The format for references is as follows: For books: Author(s): title of book, publisher, place, year. For Journals: Author(s): title of article, name of Journal (abbreviated as in the World List of Scientific Periodicals), volume: page, year.

Editorial

Do you ever wake up suddenly in the middle of the night with a horrible start and a terrible premonition that you have forgotten to do something of dire urgency? Possibly this happens regularly to our older readers whose bladders are not in such good tone as in younger days. However, this condition has been afflicting me recently and not because of bladder problems or crying children. I have been increasingly concerned as to why it should happen to me, who, as an average medical student, should have no need for concern or worry. Now of course, the reason is quite obvious. In the midst of cajoling, reluctant would-be contributors or bullying known, promised, contributors, I completely forgot to write an editorial.

This in itself is not a catastrophe because anything I might want to say should never be construed as a serious comment. But in keeping with the tradition of this Journal, an editorial seems to be an accepted way of starting off the issue. Therefore I hope you will forgive me if my editorials are neither pedantic nor illuminating but merely an expression of what the average student of medicine may have on his mind during the final years of formal education.

One problem which is currently concerning the undergraduate is "Where will I end up?". Only a few years ago this did not seem to pose an insurmountable problem. The physician was thought of as having white hair, a three piece suit, reassuring manner, and a warm, firm handshake. The specialties were moderately well defined and emphasis was placed, for the majority of practitioners, on experience.

Nowadays, with the expanding field of medicine, we have to start making a basic distinction by asking "Do I want to work primarily with the patient", or "Do I want to delve into basic mechanisms and non-patient orientated research." Of course I am allowing myself to be attacked from all sides in stating the problem in such a juvenile and absolute manner but the fact is that one hears these questions from the student many times in the course of the year.

Possibly this is the result of our own peculiar organization at the moment when the school is, by necessity, split into two sections, by virtue of having the clinical facilities off the main campus. This, most people might argue, will be corrected by the construction of the University Hospital adjacent to the Dental Sciences Building. However, I am sufficiently pessimistic to believe that this is not, or will not, be the final solution. The plethora of knowledge required by the average undergraduate makes him think of the medical course as a series of isolated hurdles which are surmounted by examinations at regular intervals and then forgotten until such time as it is necessary to dredge them up from the recesses of the mind.

This issue brings two articles on medical education to your attention and with a paper in the previous issue, means that the medical student realizes that he or she is entering a profession in which the prime aim is SERVICE and this should remain uppermost in their minds. Possibly, this is rather a sanctimonious, unrealistic statement and that in any event, the student will 'pick this up' as the medical course progresses. My own feeling is that it will not necessarily develop in the natural course of events, because the student is not given full opportunity to develop it in the undergraduate years. Of course there will be students who will go into the hospitals when they are not required to be there, but this is not the same as the student who is taught that the patient must be the most important part of his or her professional life.

The solution is simply a case of allowing us, as students, the opportunity and indeed the necessity of being responsible for a patient through all phases of their diagnosis and treatment without the fragmentation of our thoughts and skills on a series of patients who we eventually think of as numbers, diseases, or exercises. We realize that knowledge is required before decisions may be made, but patient responsibility often produces a more lasting and sympathetic attitude which can never be learned from a textbook.

"Medical students must be accorded appropriate supervised responsibility in the care of patients. They must be active and not passive members of the health team.'

Editor.

'Glasser R. J. The medical school and the teaching hospital. New Eng. J. Med. 271: 1398, 1964.

Determination of the Cardiac Output Using the Indicator Dilution Method

David Scheifele '69

Accurate knowledge of the cardiac output of a patient in shock will allow one to specify the cardiovascular defect responsible for the shock state and to proceed with treament in a more rational manner than is usually the case.

A fairly simple method of determining cardiac output involves the injection of a small bolus of an enert dye, indocyanine green (Cardiogreen), into any available superficial vein of a patient, usually the antecubital vein. Before discussing the analytical procedures, let us follow this bolus of dye through the cardiovascular system.

On injection into the antecubital vein, the dye bolus proceeds toward the heart. The dye is progressively diluted as blood from tributary veins mixes with the dye stream. This dilution process continues as the dye is dumped into the pool of blood in the right ventricle. Sufficient mixing occurs during diastole and isometric ventricular contraction to convert the entire right ventricular contents into a new dye bolus. This is then pumped into the complex pulmonary circulation. Most of the dye molecules will follow a path of "average length" through the lungs but a few will follow shorter and longer paths, returning to the left ventricle ahead of and behind the major dye concentration, respectively. The original dye bolus is strung out into a dye band by this passage through the lungs. This band of dye requires several heartbeats to clear the left heart.

If one could sit at a window in the root of the aorta and watch the dye band pass us, one would detect, (sophisticated as we are), the average concentration of the dye passing, (using a spectrometer), and the time required for this passage (using a clock). Knowing the total amount of dye present, i.e. the amount injected, it is a simple matter to calculate the volume of blood that passed by in the same interval.

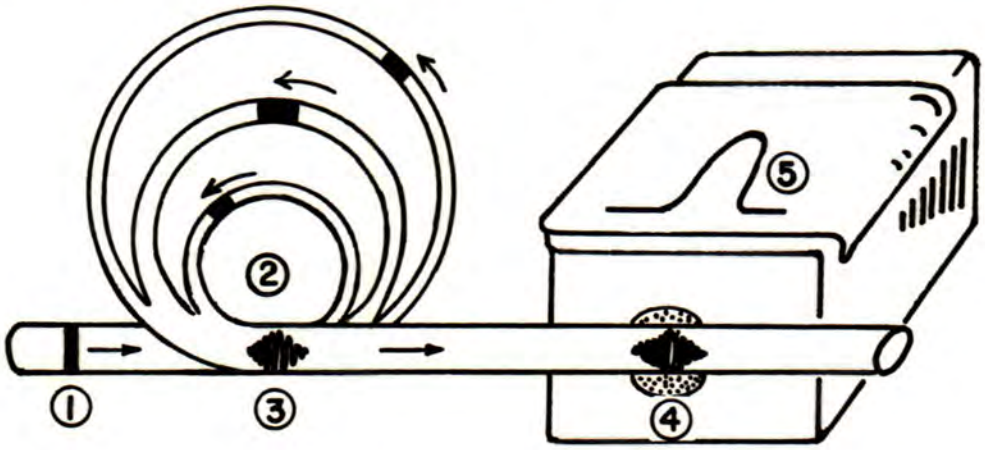

Figure I: The formation and recording of a normal Dye Curve. The original dye bolus (1) passes through the complex pulmonary circulation (2), and is converted into a dye band (3), which passes in front of the densitometer (4), and is recorded as a curve (5).

EXAMPLE:

Amount of dye injected = 5 mg.

Average concentration of dye band = 1 mg/100 cc of blood.

Time required for passage = 5 seconds.

Since 100 cc's of blood can transport only 1 mg. of dye and since all 5 mg. of dye went past the window, 5 mg. of dye must have been carried in 500 cc's of blood. Thus, 500 cc's of blood passed by in 5 seconds. In 60 seconds then, 6 litres of blood would pass along the aorta. Since all this blood comes from the left ventricle, the output of that ventricle would be 6 litres per minute.

This is all very well, but we all know that there is not a window handy in the aorta. But it also is known that the arterial system is divergent so that no further dilution of the dye band will occur. The concentration of dye will be the same as the band subdivides and passes into all arteries. Thus, an apparatus has been devised to detect, measure, and time the dye band as it passes through a suitable superficial artery, i.e., the radial artery. This device is called a cardiac densitometer. It simply draws a continuous sample of arterial blood through a clear plastic catheter which passes in front of a spectrometer, measures the density of the dye in the blood, and writes this out on a chart. (See Figure I). A typical dye density curve is shown in Figure 2.

From this curve one can readily calculate the average density of the dye band and the time required for the dye to pass the spectrometer. By calibrating the spectrometer with blood-dye mixtures of known concentration, one can obtain a factor to convert dye densities to actual dye concentrations. From this can be obtained the average concentration of the dye band. The

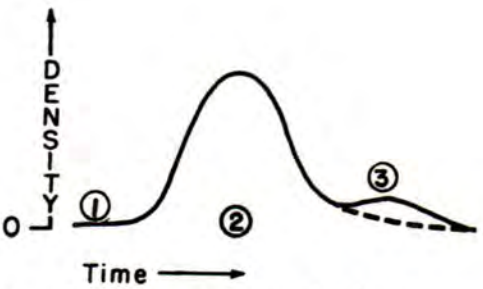

Figure 2: (1) The injection of the dye is followed by a delay until (2) the dye passes the densitometer causing a deflection. The secondary peak (3) results from recirculation of the dye.

figures thus obtained are exactly those that one hoped to measure at the aortic window. Again the dose of dye given is known, so the output of the left ventricle may be measured.

Therefore one has a simple method of determining the cardiac output. The method involves only minor inconvenience for the patient and the blood removed from the radial artery for analysis is immediately returned to the patient. The dye used is inert and non toxic in approved dosages and the results obtained, are accurate to within ±10% of values obtained by the more laborious Fick method.

REFERENCES:

1. *E. Wood et al* "Recording & Basic Patterns of Dye Curves: Normal and Abnormal". Proceedings of the Mayo Clinic. 32; p.464, 1957.
2. *A. C. Guyton.* "Textbook of Medical Physiology". W. B. Saunders Co., Philadelphia, Second Edition, p.452, 1961.

Diagnostic Applications of Dye Curves

One set of curves that has not received its share of attention around this medical school lately, are those made by injected dyes! Yet dye curves can provide more information about cardiovascular physiology than any other single parameter. In a previous article[5], the use of dye curves in the determination of cardiac output was outlined. However this method is also useful in the diagnosis and localization of cardiac pathology.

In pathological flow conditions, the shape of the normal curve is dramatically altered, allowing diagnosis of the defect.

RIGHT TO LEFT SHUNTS:

A right to left shunt will occur in pulmonary valve stenosis associated with ventricular septal defect, tetralogy of Fallot, etc. In these cases, dyed blood in the right ventricle can follow two paths. It can pass directly over into

the left ventricle or follow the normal path through the lungs. The dyed blood taking the interventricular route will reach the densitometer before the blood flowing through the pulmonary bed. The resulting curve is illustrated in Figure 3. These shunts involve mixing of oxygenated and deoxygenated bloods and therefore blood from these curves have different densities at ordinary wavelengths. Thus, an indocyanine dye (cardiogreen) is used which has its absorbtion peak at 800 mu. In incident light of this wavelength, reduced and oxygenated hemoglobin absorbs equally, eliminiating this added variable. Most modern methods use this dye exclusively, in all situations.

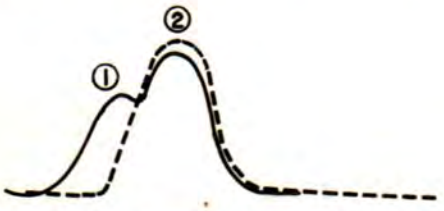

Figure 3: Dye density curve of a right to left shunt. (1) Abnormal antecedent curve due to a shortcut between the two sides of the heart: (2) Normal curve for comparison.

LEFT TO RIGHT SHUNTS:

In a left to right shunt, some dyed blood from the left heart is recirculated through the lungs. This recirculation results in a very prolonged curve, with a secondary trailing peak (See Figure 4).

LOCALIZATION OF
LEFT TO RIGHT SHUNTS:

A left to right shunt can occur at one of several sites: interatrial, interventricular, aortapulmonary, patent ductus arteriosus etc. Using the general method, i.e. injecting dye into a peripheral vein, it would be impossible

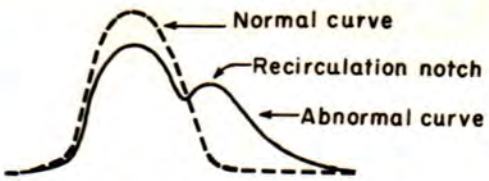

Figure 4: Dye density curve in a left to right intracardiac shunt.

to detect the location of the shunt. A more refined method involves injection of the dye at known sites within the heart, using a cardiac catheter. Dye injected proximal to the defect will cause a pathological curve. Dye injected distal, (down stream), will form a normal curve. Thus, by placing the catheter in the left atrium and systematically withdrawing it through the left ventricle and along the aorta, while taking serial dye curves, the defect can be localized very accurately. This is especially true when radio-opaque dye is used simultaneously to locate the catheter in serial x-rays.

In conclusion then, it is hoped that it has been demonstrated that dye curves represent a rational approach to the diagnosis of cardiac pathology. The erudite haze enshrouding most discussions of this subject, to which medical students are exposed is definitely unjustified.

REFERENCES:

1. E. Wood & H. Swan "Recording and Basic Patterns of Dilution Curves: Normal and Abnormal". Proc Mayo Clinic 32; p.464, 1957.
2. I. J. Fox et al "A Tricarbocyanine Dye for Continuous Recording of Dilution Curves in whole blood Independent of variations in Blood Xygen Saturation". Proc Mayo Clinic 32; 478, 1957.
3. H. J. C. Swan et al "Special Applications of Indicator Dilution Techniques in Congenital and Acquired Heart Disease". Proc Mayo Clinic 32: 485, 1957.
4. H. Swan & Earl Wood "Localization of Left to Right Shunts". Proc. Mayo Clinic 32; 486, 1957.
5. D. Scheifele "Determination of Cardiac Output using the Indicator Dilution Method". U.W.O. Medical Journal Vol. 37, Number 2, 1967.

Patient: "Doctor, last night I had a terrible dream! I ended up eating a giant marshmallow!"

Doctor: "What was so terrible?"

Patient: "When I woke up my pillow was gone!"

A Doctor examining a girl asked her had she ever been x-rayed.

"No," she said, "but I have been Ultra-Violated."

My Life or Yours?

James Laing '69

It is my intention in this paper to:

(1) Propose a workable legal stand on Euthanasia;

(2) To discuss a few of the important objections raised against it.

(3) Finally, to examine the present medical position on this topic.

The definition of Euthanasia, given by J. Fletcher[1], is a "theory that certain circumstances, when owing to disease, senility or the like, a person's life has permanently ceased to be either agreeable or useful, the sufferer should be painlessly killed, either by himself or by another".

This stand will deal with the *voluntary* forms of Euthanasia, where a patient suffering from an incurable illness expresses a desire to have his life terminated and *not* with involuntary Euthanasia. The essentials required in the stand would be:

(1) An expressed desire of the patient for euthanasia with safeguards that this desire does not change with time;

(2) A clear diagnosis of the hoplessness of the case with confirmation by another physician;

(3) The administration of the fatal agent by the patient or the doctor causing a painless death.

If the first two requirements are fulfilled it is wrong that the third is not carried out. It would seem a much better situation that a person dies with his personal integrity and pride than to be put through a demoralizing progressive disintegration. Today, medical ethics do not just call for 'prolongation of life', it also stresses the general care of a patient. The main complaint in medicine has always been pain, and it has been the alleviation of this that doctors have treated. There is no doubt that medical people must be concerned with the general health of the patient which should include the alleviation of pain by death if requested in the above situations. This raises the issue of the dilemma that exists in the ethics of medicine, for not only is a doctor required to prolong life but it is also his duty to relieve suffering. Thus, in the situation of a patient requesting the termination of a painful degrading future, is it not likely that alleviating his pain through euthanasia is of greater good than the prolongation of life against his will?

Objections raised from religious quarters are centered around the Commandment, 'Thou shalt not kill'. This is, in fact, a poor defence, because the Church has been one of the greatest murderers of all time. The Church has justified war and capital punishment which kills men without their consent. It would seem less a sin to kill someone who desires to die than to kill those who do not want death. The Book of Common Prayer interprets this Commandment to read 'Thou shalt do no murder'. This would not include euthanasia because murder carries the idea of death without the desire of the victim. Therefore, one cannot object to euthanasia on the grounds of the Sixth Commandment.

People object that voluntary euthanasia is suicide. Accepting this, one must ask if we can ever commit suicide? The Church is full of heroes who gained their greatness by giving up their life for some religious cause. From this one can conclude that people do have a right to commit suicide but that there must be a justifiable reason. It becomes apparent that this attack is based on, 'What purposes are sufficient to justify the loss of one's life'. I would think that if the defence of the innocent is reason enough to take one's life, then, the value of 'persons' integrity is also worth one's life.

Determinists argue that only God has the right to decide when a life should cease. If the above were true then it follows that it is just as immoral to lengthen life as it is to shorten life. The conclusion being that we must, in fact, practice no form of medicine or we would be tampering with the natural course of one's life. Few people would agree with this and must therefore accept the prolongation of life and the shortening of life as being equal morally.

There are other objections raised to euthanasia but due to the lack of space I must refer you to the literature for further discussion of these.[1,2,4]

It is my intention to criticize the present methods of treating these candidates for euthanasia. When a doctor realizes that a patient has no hope I think he has a moral decision to make. He can offer the patient a merciful ending and accept the responsibilities of euthanasia or he can begin treating the patient with narcotic analgesics and other maintenance treatment. It is obvious that the former course is the better if desired. The doctor who chooses to treat a terminal case accepts the patient's responsibilities. The decision of life and death now rests in the doctor's hands. If the doctor begins to treat this terminal case but finds that the treatment is doing no good and removes the treatment which has been sustaining the patient, he has performed as active a form of euthanasia as the case of initially injecting a fatal dose of morphine. The only difference is that the doctor has denied the patient mercy and allowed the patient to suffer through his own disintegration. This latter method of treatment is viewed as the accepted course of treatment today. The moral responsibilities involved in it are ignored, doctors and others in favour of this method say that it is not euthanasia but a passive death. I would argue that the removal of any treatment that is sustaining a patient after the accepting of the responsibilities for this patient is as active a form of euthanasia as that of giving consciously a fatal dose of morphine initially. Both methods carry the same moral implications but that of treatment also carries the tone of suffering.

The accepted policy of treating chronic patients is the administration of narcotic analgesics. For the patient to be relieved of pain he requires progressively more and more drug. His tolerance to the analgesic effects increases, but the minimal lethal dose stays the same. There will come a time when the dose required to relieve the pain will be close to that causing death. Thus the doctor must knowingly kill the patient or deny the patient the treament he obligated himself to give. This dilemma presents two alternatives that could have been avoided and are morally wrong.

The reason for the giving of the narcotic was the well-being of the patient. It was not being given to him with the intention of killing him. Thus, it would be wrong to give a dose that would kill the patient, and then to argue that the dose was to relieve the pain, the death of the patient being only an unfortunate side effect. Some people argue that one is morally free in this instance as long as the intent was the relief of pain. I find it hard to believe that a doctor who gives an overdose, with the idea of killing the patient, is guilty of a wrong while another doctor who gives the same overdose with the intent of relieving pain is free from guilt. Thus it would seem that the doctor is as responsible for the death of the patient if he uses narcotic treatment as he would have been if he had given a fatal dose initially.

The latter case of denying the patient medication that had been initially obligated is obviously wrong. If the doctor gives a drug to relieve suffering in the patient, he is obligated to give the patient this relief and can not deny him this at some point in the future. No doctor should be so cruel as to start treatment with a narcotic knowing that in a short time he will remove this treatment and allow the patient to suffer worse than before.

One further argument I have against the use of analgesic treatment is that this in fact slowly brings the patient closer to death. These drugs act by depressing the vital systems of the body and it follows that the resistance of the patient to his illness will also be decreased. This decrease in resistance will increase as the dose of the analgesic increases. Thus the supposed treatment of the patient is in fact accelerating his death. The Catholic Church recognizes this in, 'Ethical and Religious Directives for Catholic Hospitals' by saying in Directive 23:

'It is not euthanasia to give a dying person sedatives merely for the alleviation of pain, even to the extent of depriving the patient of the use of sense and reason, when this extreme measure is judged necessary. Such sedatives should not be given before the patient is properly prepared for death -; nor should they be given to patients who are willing and able to endure their sufferings for spiritual motives'.

There appears to be little doubt that the giving of analgesics is in fact a form of Euthanasia but not as merciful nor as honest a method as that which I advocated at the opening of this paper. I think the mercy and honesty offered by the practice of voluntary euthanasia has more to say for itself than the alternatives that offer sorrow, pain and demoralization.

In conclusion I would advocate the adoption of the draft made by the Euthanasia Society, as law in our country, which authorizes: "the making of a statutory declaration at any time during the declarant's life, and preferably when he is in normal

health, requesting the administration of euthanasia in three carefully defined sets of circumstances:-

1. If he is found to be suffering from a severely distressing physical illness thought to be incurable and terminal in his case.
2. In certain cases of grievous injury or disability of a severely distressing and permanent character.
3. If his brain suffers permanent damage or deterioration to the point where he becomes incapable of leading a rational existence.

This declaration could be modified or revoked at any time, and would not come into operation until three months after it had been signed and witnessed, so that no question would arise of a dying patient being hustled into making a declaration under pressure.

Doctors and nurses opposed on principle to euthanasia would not be required to take any part in its administration.

No reference is made in the Bill to being of age or of sound mind. But the attesting witnesses must declare that the declarant 'appeared to appreciate' the significance of the declaration; that they know of no pressure being brought on him to make it; that they believe it is being made by his own wish; and that they do not stand to benefit by his death."[5]

BIBLIOGRAHPY:

1. H. J. Rose, "Euthanasia", Encyc. of Rel. and Ethics, V, 598-601.
2. Glanville Williams, "The Sanctity of Life", p.311-350.
3. J. Fletcher, "Moral and Medicine", p.172-210.
4. Ciba Foundation Symposium: Ethics in Medical Progress, London 1966.
5. Ethical and Religious Directives for Catholic Hospitals.
6. The Observer Review; 1 October 1967, p.21.

Gems of knowledge from the faculty

Definition of Labour: When the time is right the fruit will fall. St. Joseph's Hospital D.R.

Definition of the Super Ego: That portion of the mind soluble in alcohol.
Third year Psychiatry lecture.

Definition of Premenstrual Tension: The state of mind that exists from the end of one period to the beginning of the next. Department of Pediatrics.

Definition of a Triple Blind Study:
The doctor does not know what he is giving.
The patient does not know what he is receiving.
The statistician does not know what he is doing.
Dr. M----g, Department of Cardiology.

Definition of Typical Medical Case: Etiology Unknown; Diagnosis Doubtful; Treatment Nil; Prognosis Hopeless. Overhead at A.K.K. Homecoming Party.

Dr. W----g, Department of Obstetrics. "I am not God even though the majority of obstetricians think they are".

Dr. V----e, Department of Pediatrics. "What I am going to say is a lot of nonsense".
(Ed. Admittedly, taken out of context.)

Dr. C----e, Department of Radiology. "If there is a problem with healing in a fracture one describes it as 'Delayed Union', if it has occurred to a friend; or 'Non Union', if it has happened to an enemy".

F.M.A.—A Recurrent Sex-dependant Tumour

SUMMARY

A general survey of the incidence and possible causes of the "Corset" tumour (Fibropapilloma Multiformans Annularis), together with the latest views on treatment.

GENERAL

F.M.A. is a large, fast-growing central tumour, arising from the epithelial lining of the genital tract in the female. It is usually benign and histologically consists of areas of well-differentiated cells of multiform appearance, not unlike a teratoma. Occasionally, malignancy supervenes, giving widespread metastases of anaplastic cells with a poor prognosis.

INCIDENCE AND ACTIOLOGY

F.M.A. occurs only in the precancerous female, the incidence being highest in the third decade of life, presumably associated with the high levels of sex hormones found in the blood-stream at this age. It is more prevalent among coloured races. There is an interesting geographical association with oceans: the tumour is very common on small islands and peninsulae, notably Ireland, Malta, Italy and in the Pacific. This led at one time to the view that atmospheric ozone (O_3) was a predisposing factor. However, it is now known that sea air does not contain ozone.

The tumour is also more common among the lower socio-economic classes, probably due to unhygienic practices. It occurs regardless of occupation, with the remarkable exception of nuns, who appear to be totally immune, possibly due to their habits?

Among the population of this country a number of women appear to possess natural immunity, for reasons not well understood. Once it occurs, the tumour appears to weaken the body's defences against it, since recurrences are frequent, over 90% of patients suffering at least two episodes and occasionally 10 or 20. On the other hand, F.M.A. provides an interesting example of "premunition"; while the tumour is growing the host becomes temporarily immune to further attack, and only 1.2% of cases are found to have a multiple tumour.

The tumour is associated with alcoholism, and also with juvenile delinquency. Surprisingly, it is not found in those addicted to psychedelic drugs. It is interesting that Kinsey *et al.* (1948) have suggested that F.M.A. may result from chronic irritation of the genital mucosa due to vaginally-introduced toxins, but the present author believes that such toxins migh equally well reach the genital tract by reflux of urine: the urine of such patients does indeed contain unusual constituents (see below).

Similar tumours occur throughout the animal kingdom. Such tumours are unusually successful as isotopic heterografts, and have even survived when transplanted into members of other species, showing an almost parasitic indifference to the state of the host.

SYMPTOMS

Patients with F.M.A. may present with malaise, fatigue, nausea, amenorrhea, varicose veins and frequency of micturition. In addition, they may complain of progressive obesity, necessitating a corset several sizes larger than usual. The condition often causes grave concern among near relatives, notably parents of teenage patients, who themselves often need medical attention.

The presence of F.M.A. is confirmed by detecting 17-oxosteroids in the urine. False positives are given in Cushing's syndrome and by certain tumours.

TREATMENT

The tumour is initially hormone-dependent and can be prevented by removal of both ovaries and adrenals—this it not performed unless metastases indicate a malignant change. Later the tumour becomes hormone-independent. Certain natural conditions of hormone-imbalance (e.g., the Stein-Leventhal syndrome) confer complete immunity and recently prophylaxis has been successfully achieved by administering repeated small doses of sex-hormones: the precise mechanism is obscure.

Surgical treatment by local excision is invariably unsuccessful, recurrence occurring in a year or two. Wide excision is better, but is usually reserved for cases where conservative

treatment is unsuitable, such as concurrent cardiac diseases or diabetes. Medical treatment with quinine, etc., is a barbaric practice still existent in some underprivileged sections of society.

F.M.A. is a unique tumour in that the treatment of choice is conservative. The patient is kept under regular supervision, given sedatives where necessary and her general health maintained by oral mineral elements and folic acid. The tumour may attain enormous dimensions, weighing up to ten pounds, but eventually is spontaneously ejected by the patient, who is usually little the worse for the experience. Nevertheless, the patient must be taught essential vaginal hygiene if a recurrence is to be avoided.

A. C. CARR

This article is reprinted from 'Broadway', Westminster Hospital Medical School, London, England.

This couldn't happen in our school

A demonstrator in Anatomy showed up one morning with a beautiful new fedora. As it hung gleaming on it's peg, one of his students evolved a scheme.

During the lunch hour he bought an identical hat, even to the custom initials on the inside headband. But there was one difference: it was a size larger. He got back before the rest of the class—and the demonstrator—and switched hats. He hid the original one in his locker.

At the end of the day, the demonstrator donned his new hat. It fell over his ears. His first act was to look inside. It was his hat alright: the initials proved that. But it was still too large. The worried demonstrator went home hat in hand.

Next morning, the observant student noticed that the hat seemed to fit pretty well. At lunch time re discovered the reason. The headband had been carfully lined with paper. The student got the original hat out of his locker, transferred the tissue paper to it and left it on the peg.

At the end of the day, the demonstrator put on his hat. To his horror it now sat on his head, at least a size too small. The frantic demonstrator looked inside: there was the tissue paper he had carefully put inside. With a shaking hand he immediately submitted his resignation, and phoned the department of Psychiatry for an immediate interview.

* * *

The plight and pride of a 'Meds' Wife

The road is rough,
The exams are tough,
But you're his wife, you know.
He may seem gruff,
You've had enough,
But better winds will blow.

The first's the worst
But it's the first.
Adjustments do take time,
Your love will burst,
Not so your purse
You'll never have a dime.

The next is mild,
And you've no child
So now's the time to try.
And when he's riled,
Assignments piled,
Then your confinements nigh.

The third is best,
He's taking a rest,
At least exams are few.
And now you're blest
With a growing nest
And here comes Number Two.

The fourth and last
Your die is cast,
Mother and Med's wife too.
It's gone so fast
The years have passed,
You've seen your husband through.

And now you're sad,
T'was not so bad
To be the chosen few.
You've made him Dad,
It makes him glad,
He did it just for you.

Mother of Three (Third Year!!!).

An Appraisal of Drug Sampling*

Dr. R. W. Fassold '67*,
Dr. E. L. Heath '67, and
Dr. C. W. Gowdey
**Department of Pharmacology,
The University of Western Ontario**

The supplying of drug samples to physicians, dentists, veterinarians and pharmacists by pharmaceutical manufacturers is a recognized means of drug promotion. As part of a larger survey of the reactions of physicians to drug promotional methods, it was considered of interest to pose several questions relating to current drug sampling practice.

The first part of the study was done by means of a questionnaire to elicit the opinions and estimates from a large number of doctors as to the means of delivery, disposition and and value of drug samples. The second part involved a quantitative analysis of several aspects of drug sampling and was done with the cooperation of five local physicians.

PART I

The general questionnaire was sent in June 1966 to all the known doctors (1584) in the 14 counties of Southwestern Ontario. Included with the questionnaire was a stamped, addressed return envelope and a letter from Dr. A. T. Hunter, Director of Continuing Education, Faculty of Medicine, encouraging the doctors to participate in this study. Although no rewards were offered for returns and no reminder letters were sent, a total of 531 questionnaires were returned completed. Of these completed returns, 48 percent were from general practitioners and 51 percent from specialists. These figures are very close to the percentage distribution of all Canadian doctors. On eight returns the type of practice was not indicated and could not be determined. A total of 91 percent of the doctors signed the completed forms.

*This survey was undertaken by R. W. Fassold as part of an elective course in Pharmacology.

Analysis of the answers to questions involving drug samples are tabulated from the specialists, the general practitioners, and from all doctors replying (including all or some of the eight mentioned above).

Question: "What proportion of the drug samples you have received this year would you *estimate* came by mail, and what proportion were left by the detailman?"

Percentage Distribution of Answers

Choice of answers:	"Majority came by mail"	"Majority were left by detailman"	"The split is about 50:50"	"No idea"	Total no. of answers
Specialist	20%	58%	19%	3%	(260)
G.P.	9	60	28	4	(251)
All doctors	14	59	23	3	(518)

Question: "Of the free drug samples you received by *mail* this year, what proportion would you *estimate* were received in response to a returned 'request card'?"

Choice of answers:	Percentage Distribution of Answers					
	"Most were requested"	"Most were not requested"	"None was requested"	"Split is about 50:50"	"No idea"	Total No. of answers
Specialist	49%	26%	10%	13%	2%	(265)
G.P.	49	27	9	12	4	(249)
All doctors	49	27	9	13	3	(521)

There is little difference between groups: the doctors estimate that over 25 percent of the samples received by mail were not requested. This is rather surprising when one recalls that the Canadian Food and Drugs Act was amended in 1963 to provide new and stricter regulations regarding the distribution of drug samples. Either about one-quarter of all samples received by these doctors were not drugs in Schedule 1 (Schedule F drugs or new drugs for which a notice of compliance had been isued) or the regulations were not being obeyed or the doctors' estimate was high.

Question: "Of the free drug samples you accepted from detailmen, what proportion would you *estimate* you really wanted and expect to make use of, and what proportion are provided solely on the initiative of the detailman?"

Choice of answers:	Percentage Distribution of Answers				
	"I do not want, or expect to have any real use for most of the samples"	"I wanted and expect to use most of the samples"	"Don't know"	Other	Total answers
Specialist	27%	60%	1%	13%	(264)
G.P.	22	57	4	17	(246)
All doctors	24	58	3	15	(517)

Although 58 percent of all doctors claimed that they wanted most of the samples left by detailmen, a substantial number (24%) said they did not want or expect to use most of their samples.

Question: "What would you *guess* to be an average *monthly retail* value of drug samples received by doctors in a practice similar to yours?"

	Percentage Distribution of Estimates						
	Total	<$11	$11-25	$26-50	$51-100	$101-200	>$200
Specialist	(185)	31%	29%	26%	9%	4%	2%
G.P.	(188)	5	29	31	20	9	6
All doctors	(377)	18	29	29	15	6	4

Only 377 (71%) of the 531 doctors who returned the questionnaire would volunteer an estimate; most of the remaining doctors stated that they did not know. Although their answers vary widely, the table shows that 76 percent of all doctors replying estimated the retail value of drug samples received in a month to be $50.00 or less, and 47 percent estimated

it to be $25.00 or less. The quantitative analysis of drug samples shown in Part 2 indicates that most doctors grossly underestimated the retail value of samples received.

Question: "How do you dispose of drug samples for which you have found no use in your practice?"

Discussions with practising physicians and others before this questionnaire was devised suggested that the storage and disposition of drug samples could be a serious problem which was handled in a variety of ways. This question was considered complementary to the preceding questions, the aim being to learn what became of unused drug samples, not to determine what percentage were unused in the practice.

Because this was a free-answer question the replies were categorized as shown in the table. The answers of some doctors were detailed and are included in more than one category. Inappropriate answers, such as "give to patients" are not included in the table because it appears that the samples were used.

Percentage Distribution of Replies

Category of Reply	Specialist	G. P.	All doctors
Dispose of safely*	24%	46%	34%
Discard*	44	35	40
Hospital Pharmacy, Charitable Institutions, Overseas Relief, etc.	18	12	15
To other doctors, Relatives, Friends	6	2	4
Local Pharmacist	5	5	5
Accumulate	3	1	2
Total answers:	(261)	(250)	(517)

*See text

The first two categories in the table were separated because there seemed to be no indication in many of the answers that the unwanted drugs were being disposed of safely. Replies like "flush down the toilet", "destroy", "burn them" etc. were considered as disposed of safely, whereas answers like "throw out", "in the waste basket", etc. were included in the second category, where safe disposal is questioned.

From the table it appears that the general practitioner, especially, is concerned about how he discards these drugs: 81 percent said they "discard" unused drugs and 46 percent indicated that the drugs were *destroyed safely.* Of the specialists, 68 percent said they "discard" unused drugs, but only 24 percent of them indicated by their answers that the drugs were discarded *safely.* We have no real way of knowing the actual number of drug samples received nor what percentage of samples actually are unused, nor how this compares in the two groups of doctors. From the earlier question, however, it seems that 24 percent of all doctors "do not want" or "do not expect to use" most samples left by drug detailmen. Moreover, a total of 36 percent of doctors replied that of the samples they received by mail "most were not requested" or "none was requested". It is worth noting that 5 percent of all the doctors stated that they "give" unwanted drug samples to the local pharmacist.

PART 2

To obtain a quantitative estimate of the volume and value of drug samples given to doctors in the London area, a small but intensive survey was carried out in June 1966 with five practising physicians. Those participating included two general practitioners in group practice, another doctor in general practice, one general practitioner who makes a point of not requesting drug samples, and a specialist (Internal Medicine) who also does general practice. In order to minimize any tendency, involuntary or not, to prejudice the results, none of the doctors was asked to participate in the study until three days (or fewer) before the recording period began. This obviated any abnormal backlog of requests for samples before the beginning of the study. Moreover,

each doctor was asked to continue his normal habits regarding drug samples; they were to request and accept neither more nor fewer samples than usual and not to inform any drug detailman about the survey to avoid any bias in the variety or quantity of samples provided.

The record forms provided to the doctors asked for information on whether the sample received was requested or not; by what means the sample was delivered; the name of the supplier; and the name, quantity, dosage form, concentration, etc. of the sample. A fair retail value of each sample was estimated to the nearest five cents by a registered pharmacist, who used the list prices quoted in the price book (31st edition) published by the Canadian Pharmaceutical Association. For the fewer than 15 percent of samples which could not be priced by this means, the retail value was set as the cost price plus the usual mark-up of 40 percent. The prices were those published in December 1965 and were thus current for the survey in June 1966. In many cases the list prices quoted were for significantly larger quantities of drugs than the samples contained but the estimated value was taken as the appropriate fractional value of the large unit price. In this way, any increased costs for the small volume and for packaging, distribution and so on were not counted. Fewer than 10 samples could not be priced and although they are included in the sample numbers and averages, their value is shown as zero. For all of these reasons, it is clear that the retail value of the samples is conservatively estimated.

The terminology used in the tables needs some explanation. A "sample unit" means a convenient-sized sealed package (for example: bottle, tube, "blister pack" etc.) suitable for presentation to a patient. Whether it contained only one dose or several doses, it was still considered to be *one* sample unit. The number of "drug preparations' shown in the tables does not mean the number of different drugs: if a compound was provided in two dosage forms (e.g. tablets and syrup), then it was counted as *two* drug preparations. If a drug was supplied, for example, in tablets of two different strengths (1 and 5 mg.), then it was also counted as *two* preparations.

The following table indicates that *on the average* each of these five doctors in a one-month period (June, 1966) received 256 sample units containing an average of 43.4 different drug preparations at an average retail value per doctor of $225.05. The average number of companies sending samples to each doctor was 16.2, but in all a total of 43 different companies sent drug samples in this one month.

	Doctors 1 & 2	Doctor 3	Doctor 4	Doctor 5**	Mean per Doctor
No. of sample units received*	766	287	166	61	256.0
No. of different drug preparations*	98	69	37	13	43.4
No. of companies sending samples	32	26	16	7	16.2
Total estimated retail value*	$668.15	$286.60	$147.45	$23.05	$255.05
Maximum retail value of sample units from any company per month	$ 81.85	$ 33.35	$ 31.60	$ 8.00	$ 30.96
Maximum number of sample units per month from one company	98	44	25	24	38.2

*See text for explanation of "sample unit", "drug preparations" and "retail value".

**This doctor does not request any drug samples.

In the following table ti will be seen that for the total of 1213 sample units where the doctor recorded the means of delivery, 39.1 percent came by mail whereas 60 percent were brought by detailmen. Moreover, a total of 448 sample units with a retail value of $276.00 were stated *not* to have been requested.

Samples requested	No. of sample Units*	No. of Drug Preparations*	Retail Value*
Delivered by mail	168	30	$ 93.55
Delivered by detailman	391	55	453.55
Means of delivery not indicated	42	11	111.40
	(601)	(96)	($ 658.50)
Samples not requested			
Delivered by mail	236	30	43.90
Delivered by detailman	212	41	232.10
	(448)	(71)	($ 276.00)
Not reported whether requested			
Delivered by mail	70	28	61.05
Delivered by detailman	136	19	89.90
Means of delivery not indicated	25	3	39.80
	(231)	(50)	($ 190.75)
Totals	1280	217	$1125.25

*See text.

**Numbers in brackets are the subtotals.

COMMENT

It is of interest to contrast the results of this limited but quantitative survey with the opinions obtained from our general questionnaire sent *in the same month* to a large number of physicians (Part 1). In answer to the question concerning the proportion of drug samples received within the year, 9 percent of 251 general practitioners estimated that the "majority came by mail" and 60 percent estimated that the "majority were left by detailmen". The intensive survey of five doctors in general practice showed that 61 percent of samples were delivered by the detailmen. To another question, 57 percent of 246 general practitioners said they "wanted and expected to use most of the samples" which they accepted from drug detailmen, but 22 percent answered that they did "not want or expect to have any real use for most of the samples". Some physicians indicated that the samples were too small to be useful; others said that "they just accumulate".

The pharmaceutical manufacturer is concerned with getting both the name of the drug and the finished product itself to the doctor. If the doctor does not read direct mail advertising, then the manufacturer may still achieve his aim if the doctor will accept a sample from a detailman. If it is true that almost one-quarter of physicians really do not want or expect to use most of the samples, this represents not only a considerable waste of money but a potential danger if the drug samples are not disposed of safely. The responsibility for the disposition of drug samples clearly rests on the doctor. If he receives unsolicited samples in the mail which he does not want or need, he can return them forthwith to the sender—an expedient method of expressing his displeasure. Unwanted samples offered by a detailman can be refused.

When asked to guess an average monthly retail value of drug samples received by doctors in a practice similar to theirs, many replied that they did not know. However, a total of 377 doctors did give an estimate and about three-quarters of them guessed the "monthly retail value" of samples to be $50.00 or less and almost one-half guessed as low as $25.00 or less. These estimates are grossly below the figures obtained from our survey with five local doctors.

It will be argued that the retail value—even our conservative calculation of it—is much greater than the actual cost to the pharmaceutical manufacturer. This is undoubtedly true but if the results of the present survey are any indication of current drug sampling practice to Canadian physicians in general, then even a figure as low as 25 percent of our calculated retail value represents a considerable annual expenditure on drug samples. A little arithmetic based on the above results leads to a figure which, however exaggerated by the small size of the survey, still is though-provoking when compared with the total budget ($15.3 million) of the Medical Research Council of Canada in 1966-67.

The Graduate Education of Physicians

A Review of the Report of the Citizen's Commission on Graduate Medical Education

Henry M. Rubinstein '70

"For any learned profession there are but two alternatives for establishing standards of practice and education. Responsibility can be assumed by society as a whole, operating through government, or can be assumed by the organized profession through a voluntarily accepted self-discipline. There are no other alternatives, for, if the profession does not take responsibility, society will surely demand that the vacuum be filled and the government assume the responsibility."

This statement clearly sets forth one of the more pressing problems facing the medical profession to-day. Both in Canada and in the U.S., the present status of residency training is under critical examination. In Canada it was the topic of a special symposium, the proceedings of which appeared in the Canadian Medical Association Journal as the "Conference on Residency Education in the Clinical Specialties."[1] In the U.S. it has recently been the subject of a special report commissioned by The American Medical Association entitled "The Graduate Education of Physicians" (also known as the Millis report[2]). It will be the purpose of this article to deal with the latter report not only because it is of great interest to those who are soon to contemplate residency training, but also because it is an extremely readable and informative document, which by many standards of medical education is quite radical. Certainly the report is a must for all those interested in the future of medicine.

The first thing that strikes one about this report is that it has been prepared by a non-medical committee; the author's being well known educators and not physicians. (Medical advisors however, were made available to the committee). This report, therefore, is of particular value because it looks at the complex problem of graduate medical education from an independent viewpoint, unaffected by tradition, and based purely on contemporary and future trends in the need for medical manpower.

To begin with, the Millis report points out that the major weakness in the organization of present residency training in the U.S. is its great lack of organization. There is a great multiplicity of individuals, institutions, committees and organizations concerned in some capacity with graduate medical education. Although these interrelationships are not as complex in Canada, the situation is nevertheless quite analogous.[3] For example, consider the following interrelationships.

At the professional level, the Royal College of Physicians and Surgeons approves hospitals for training and examines fellowship candidates, the content of these examinations playing a very great role in the determining pattern of the residency training. The provincial licensing Colleges of Physicians and Surgeons grant specialist certifications and in many cases insist on somewhat different training requirements from those of the Royal College. In addition, the Association of Canadian Medical Colleges has felt inclined to see graduate training under its control. At the university level, the head of each clinical department becomes responsible for organizing a graduate program suitable to his department. Furthermore, even the Dean's office in the Faculty of Medicine is likely to become involved as it is this office which determines the level of graduate education within the faculty. Certainly, the extent to which a Dean can influence the quality of residency training in any given institution is highly variable, but the Dean may have the responsibility for securing University funds which could aid such training. One still must

consider the problem at the hospital level, where the educational potential of any teaching program must be matched with facilities and money. Finally, there is the level of the graduate physicians themselves. While the quality of the residency program is almost always the deciding factor, many graduate physicians are forced to accept certain training positions for financial reasons alone. In short, the responsibility for the quality of graduate training is diffuse and greatly fragmented without any one organization to insist upon agreement and consistency.

Having documented a lack of cohesion, the Millis report calls for a centralization of the responsibility for graduate medical education. "Because education programs properly differ from one institution to another, we recommend that each medical school faculty and each teaching hospital staff, acting as a corporate body, explicitly formulate, and periodically revise, their own educational goals and curricula. To do so, would be a healthy exercise for medical educators and a fundamental step toward the solution of many of their educational problems".

For the future, the Millis report sees a greater trend toward "institutionalized practice", and with this in mind, makes most of its recommendations.

"The completely independent practice of medicine is no longer possible, and even the maintenance of an individual office is steadily declining as more and more physicians seize the advantages of hospital, clinic, and group practice."

In their opinion, this trend is beneficial to both doctor and patient. A group practice presents the patient with a variety of talent, specialized knowledge in different areas, and greater use of paramedical sides. The end result of many medical people working together can only be a higher quality of medical care than that offered by the lone practitioner in his own office. For the individual doctor in this setting, a group or clinical organization can make more efficient use of his time, and free him to continue his education in his chosen area. Being surrounded by other physicians in a daily working relationship is also considered a strong impetus to keeping the quality of the health care high. Furthermore, the report notes the obvious economic advantages to the physician which result from shared office and laboratory equipment and personnel.

While the report is quick to point out the advantages of specialization and "institutionalized practice", it also comes to grips with the major disadvantages.

"Specialization, with all of its advantages, has led to fragmentation, an insufficiency of physicians who are competent and willing to offer comprehensive and continuing care, difficulties in co-ordination among the specialties, and the development of serious barriers to the changes in graduate medical education that might overcome these faults." Moreover, the report argues that no doctor by himself, has all the knowledge and skills necessary to provide all of his patients with optimal health care. It is no longer even possible for each doctor himself, to acquire the sum total of all this knowledge. Therefore, the report suggests that doctors be trained for co-operative efforts among medical specialists, not as general physicians. This then leads one to ask about the role of the general practitioner in such a scheme of co-operative practice.

The Millis report begins its discussion of this issue with the following considerations: "The more widespread practice of comprehensive medicine has been handicapped by three factors: low status of the practitioner, lack of an appropriate educational concept and accordingly of educational opportunities, and unfavourable conditions of practices."

Their answer to these problems is to create a new specialist, the "primary physician" who fits perfectly into schemes of co-operative practice. He would be the one physician in a group practice, for instance, who would be responsible for the "whole patient". He would decide which specialists have the talents necessary to give the patient the best care. He would be the physician who is continually gathering and assessing all the medical data on the patient and, in short, be responsible for his comprehensive care. "It is time," the report says, "for a revolution, not a few patchwork adaptations."

"The first necessity is for organized medicine to recognize not merely in a formal sense, but sincerely—that comprehensive health care is a high calling, different from specialization in thoracic surgery or hematology or something else, but not inferior—not inferior in training, in rewards, or in position within the house of medicine.

The lip service routinely paid to the importance of comprehensive, continuing health care does little to offset the powerful inducements to specialization."

Regarding the education of the primary physicians, the commission makes five recommendations:

1. "Simple rotation among several services, in the manner of the classical rotating internship—even though extending over a long period of time—will not be sufficient. Knowledge and skill in the several areas are essential, but the teaching should stress continuing and comprehensive patient responsibility rather than the episodic handling of acute conditions in the several areas".

2. "Some experience in the handling of emergency cases and knowledge of the specialized care required before and following surgery should be included."

3. "There should be taught a new body of knowledge in addition to the medical specialities that constitute the bulk of the program."

4. "There should be opportunities for individual variations in the graduate program".

5. "The level of training should be on a par with that of other specialties. A two-year graduate program is insufficient."

If we assume that more satisfactory environment will be created for the training of the general practitioner ("primary physician"), what about the specialist? How should his training be altered? As already mentioned, one of the main themes of the Millis Report is that all doctors be trained for co-operative efforts. Starting from his premise the commission makes the following recommendations.

1. *Corporate Responsibility:-* "We recommend that each teaching hospital organize its staff, through an educational council . . . so as to make its program of graduate medical education a corporate responsibility rather than the individual responsibilities of particular medical or surgical services or heads of services."

2. *Continuity of Medical Education:-* "We recommend that the internship, as a separate and distinct portion of medical education be abandoned, and that the internship and residency years be combined into a single period of graduate medical education called a residency and planned as a specific whole".

3. *General and Specialized Stages of Medical Education.*

4. *Basic Residency Training.*

5. *The Duration of Residency Training.*

Under these last three headings the report calls for graduation from medical school to be recognized as the end of general medical education. At this point students would embark on their chosen course of study, be it surgery, obstetrics or general practice. Ideally, the commission would like to see graduate courses so arranged as to permit all those involved in surgical problems, for example, to complete 18 or 24 months of "fundamental" training in the problems of blood loss, shock, fluid replacement, electolyte balance, etc. and then proceed to their areas of further specializations. In short, this fundamental course would be taken by residents in obstetrics, general surgery, E.N.T., neurosurgery, urology, etc., with an analogous fundamental or core course set up in diagnosis for residents in internal medicine, pediatrics, psychiatry, etc. These courses would be essentially clinical in nature having an occasional relavent basic science lecture presented, but always requiring the trainees to be responsiible for the care of the patient population. This, the report argues, would have three major advantages. It would make more efficient use of the patient population, more efficient use of the resident's time, and perhaps most significant, force physicians in related areas (such as surgery and obstetrics) into co-operative teaching efforts where ideas and opinions could be freely exchanged.

It is of interest to note that the commission expresses the view that the duration of medical training need not necessarily be lengthened simply because the knowledge is increasing in complexity. Rather, they call for the more effective use of the trainee's time, with attempts being made to shorten the duration of training. The abolition of internships, they argue, is a step in this direction.

Finally, the report calls for the establishment of one body to oversee the complexities of graduate medical education: "We therefore recommend that a newly created Commission on Graduate Medical Education be established specifically for the purpose of planning, co-ordinating and periodically reviewing standards for graduate medical education and procedures for reviewing and approving the institutions in which that education is offered."

Clearly, much of what is presented in this report is open to debate. While many medical educators have hailed its recommendation, many others have expressed their criticisms on the editorial pages of medical journals in Canada and the U.S. (For a good example of such criticism, the reader is directed to an editorial in the C.M.A.J.[4] entitled "The New Flexners".) It is not the purpose of this paper to present authoritative criticisms of the Millis Report. Nevertheless, this Journal welcomes

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Hyperparathyroidism - A Case Report

Robert S. Thomas '68'

Hypercalcemia accounts for all the symptoms present in hyperparathyroidism. Although urinary tract involvement is much more common than bone involvement in hyperparathyroidism in North America, cases showing bone involvement do present in places other than hospital wards. The following case is representative of a typical case of hyperparathyroidism.

CASE REPORT - MRS. G. C.

This 29 year old housewife was admitted to Victoria Hospital on November 15, 1966 with complaints of difficulty in walking and running quickly which had begun in January, 1965. This difficulty was especially noticed in the left leg and was followed by the appearance of a hard tender lump over her left shin. On x-ray, cystic lesions were found in both tibia. Since January 1966 she had had increasing difficulty climbing stairs, and had noticed a loss of muscle bulk of both thighs. She also complained of low back pain since the birth of her last child, and bilateral knee pain present one year prior to admission.

In April 1966 a biopsy was taken from the lump on the left tibia which showed changes compatible with hyperparathyroidism.

Continued from page 49

any comments which its readers might have on this vexing and often difficult problem facing newly graduated physicians.

REFERENCES

1. Conference on residency education in clinical specialties. C.M.A.J. *95*: 695, 745. 1966.
2. American Medical Association: The graduate education of Physicians. The report of the Citizens Commission on Graduate Medical Education, commissioned by the American Medical Association. Chicago, Ill. (1966). This report is available without charge on request to: Council on Medical Education, American Medical Association, 535 North Deaborn Street, Chicago, Illinois, 60610.
3. Bates, D. V., Advanced Professional Training. C.M.A.J. *96*: 1057. 1967.
4. Editorial. The New Flexners, C.M.A.J. *96*: 1066, 1967.

Subsequent complaints were pain in the left ribs, weakness, nervousness, and inability to do her own housework due to fatigue.

PAST HISTORY

She had had five pregnancies, the last one terminating in a stillbirth in February 1966.

FAMILY HISTORY

A strong family history of cancer; her father died at age 70 from "bone cancer", an aunt died of cancer of the nose, an uncle had cancer of the skin, and a cousin died of cancer of the lip with metastases. A sister had bone trouble with bowed legs.

PHYSICAL EXAMINATION

Head, neck and chest were all normal.

CVS—Pulse 104/minute and regular
B.P. 160/120/100 supine
Auscultation—both sounds were heard and a grade 1/4 systolic ejection murmur was heard in the aortic area and at the apex.
The heart was not enlarged.

Abdomen—She has a lax abdominal wall with weak recti muscles. Peristalsis was visible. No tenderness and no masses were found on palpation.

Musculoskeletal system—

(a) wasting of both quadriceps for about 6 inches above the knees. No other wasting was noted.

(b) Muscle tone was normal. Power was markedly decreased in the left quadriceps, right quadriceps, and flexors of thigh of the left hip. The patient was unable to extend both legs in the sitting position.

(c) Weakness of the intrinsic muscles of the hand and also the extensors of the fingers.

(d) A lump present in the left tibial crest at the junction of the lower 2/3 with the upper 1/3 4 cm. long by 3 cm. The lump was warm to touch, tender, and hard. No bruit was heard.

(e) Very brisk knee jerks were elicited, the right slightly more so than the left. All other reflexes were normal and equal.

LABORATORY FINDINGS

On admission—serum calcium 18.4 mg. %
Serum alkaline phosphatase 37.5 K.A. units.

November 18, 1966

serum calcium 14.3, 14.7, 14.4 mg. %
serum inorg. phosphorus 2.2, 1.6, 2.2 mg.%
serum alkaline phosphatase 5.7, 5.5, 5.0 units.
serum electrolytes Na 141, K 4.3, Cl 114 mEq/L.
total protein 6.8 g.% albumen 3.96 g.%
A/G ratio 1.39/1.00

Urine—Bence Jones protein negative.
straw coloured cloudy urine.
pH 7.0, 6.5, 7.0.
S.G. 1.010, 1.007, 1.006.
Albumen trace x3.
Ketones 1 plus on one occasion.
sugar negative x3.
no bacterial growth.

Hematology—normal.

X-RAY FINDINGS

An I.V.P. done on November 28, 1966 showed bilateral nephrocalcinosis, a left renal calculus, and minor changes in the calyees of the left kidney suggestive of pyelonephritis—all changes being consistent with hyperparathyroidism.

Skeletal survey showed demineralization of the phalanges with cystic change. Similar changes were noted in the right and left tibia, the bones of the feet, the lamina dura of the teeth and the skull. The humeri, clavicles, and ribs showed lytic and lucent areas. These changes are all consistent with hyperparathyroidism.

ELECTROMYOGRAM

This was done on the left side of the quadriceps, the left adductor longus, the gluteus medius, gluteus maximus, tibialis anterior, and erector spinae at L3. No fibrillations were noted nor were there positive sharp waves. Individual complexes were polyphasic, and rather longer than usually seen in myopathies. This fairly full pattern in the absence of fibrillation favoured a diagnosis of myopathy. Electro-physical diagnosis is compatible with muscular dystrophy or myopathy.

THYROID SCAN

Within normal limits with no areas suspicious of a parathyroid tumour.

COURSE IN HOSPITAL

Since these findings were compatible with a diagnosis of hyperparathyroidism, on December 1, 1966, the patient underwent surgery with removal of a parathyroid adenoma from the right inferior lobe of the thyroid gland. At the same time a biopsy was taken from the left quadriceps muscle, which proved to be normal striated muscle, with no pathological changes evident. The post-operative course was uneventful. Her serum calcium dropped to 11.1 mg.%. Post-operatively she was given 10 cc of 10% calcium gluconate to relieve some muscle numbness and tingling. On discharge December 15, 1966, her serum calcium was 8.3 mg.% and her serum phosphorus was 2.3 mg.%.

DISCUSSION

History—In 1891, von Recklinghausen described a generalized disease of bone, osteitis fibrosa cystica. In 1904 Askanazy associated this condition with a parathyroid tumour. In 1925 Mandl removed a parathyroid adenoma from a patient and noted a remarkable improvement. In 1934, Albright reported the occurrence of hyperparathyroidism without bone disease.

Incidence—The incidence of hyperparathyroidism is unknown, occurring most often in middle life with 70% of patients being female. Skeletal involvement is usually a late development in the disease. In North America urinary tract involvement is much more common than bone disease.

Pathology—Hypersecretion of the parathyroid glands may be caused by adenoma, hyperplasia, or carcinoma. Adenoma is by far the most common (90%), and carcinoma is rare. Adenomas, encapsulated soft orange brown masses embedded in fat, are usually limited to one gland without correlation as to size and activity. They are occasionally lobular and all cell types may be present. The hyperplastic gland is irregular in shape and a darker mahogany brown in colour, with good correlation as to size and over-activity. In primary diffuse hypertrophy, all glands are involved but not necessarily to the same extent.

Embryology—Parathyroid glands, like the thyroid, are endodermal structures, originating from the posterior half of the third and fourth pairs of pharyngeal pouches. They are reddish- or yellowish-brown, flattened, ovate or piriforms bodies, located usually on the posterior lobes of the thyroid. There are usually four glands, with variable locations from within the thyroid glands, in the

mediastinum, or scattered regions within the neck. The average size is 5x3x3 mm. with a combined weight of 120 mg.

Histology—The adult gland consists of chief cells and oxyphil cells. The chief cells are more numerous, containing glycogen, and are the source of the parathyroid hormone. The oxyphil cells appear at the tenth year of life and contain no glycogen. In hypertrophy and hyperplasia of the parathyroids, the wasserhelle cell, the large water-clear cell, derived from the chief cell is the commonest cell type.

Hormonal Function—The function of the parathyroid hormone is to maintain a normal level of plasma calcium by a direct effect on the skeleton. Changes in plasma calcium, phosphate, and alkaline phosphatase levels are still the most reliable and important indicators of parathyroid function. The mechanism by which parathyroid hormone releases bone calcium to the E.C.F. is unknown; the hormone not only affects the relatively stable fraction of bone mineral, but also causes the dissolution of bone matrix. The process of renal tubular reabsorption of phosphate in the proximal tubule is inhibited by parathyroid hormone without any effect on the G.F.R. Parathormone also has an effect on the amount of calcium in the breast milk of animals—although not yet proven in humans. The lens also seems to be under parathyroid control as the incidence of cataracts is high in untreated hypoparathyroidism.

Bone Metabolism—Bone, a mesenchymal structure, consists of two types—membranous which develops between flat layers of collagenous tissue, (skull etc.), and endochondral which develops by the replacement of a cartilaginous anlage. Bone composes the major bulk and weight of extracellular material. There are two phases—the organic phase of which 95% is collagen fibres with small amounts of mucopoly-saccharide, and the mineral phase which consists of small crystals deposited on, between, and in the collagen fibres—which accounts for the rigidity and elasticity of bone.

Osteoblasts are cells, some of which at all times are engaged in the synthesis of new organic bone matrix i.e. forming collagen with the use of oxygen and substrates, (glucose, amino acids),—the rate governed by a variety of hormonal factors as well as by age. As the process of new matrix synthesis continues, the osteoblast becomes entrapped in its own product and becomes an osteocyte deriving its nutrition through Volkmann's canals. Another cell type, the multinucleated osteoclast, is found only in areas of active bone resorption.

The mineral phase consists of tiny needle shaped crystals of basic calcium phosphate salt, largely the hydroxyapatite series, $10\ Ca.^{2}+6(PO_4)^{3}\text{-}.2(OH)$- with significant amounts of $Na+$, $Mg++$, CO_3^{2}-, and citrate^{3}- ions substituting for either $Ca++$ of $(PO_4)^{3}$- in the crystal structure, or being held with in the hydration shell of the crystal or absorbed on its surface.

Calcium is present in the plasma at a normal level of approximately 10mg.%; of this, 50% is bound to albumen and is non-diffusable, 5% is present in soluble diffusable complexes with citrate^{3}-, HPO_4^{2}-, and SO_4^{2}-, and 45% as free $Ca++$ ions—the biologically significant form. Inorganic phosphate has two main forms—H_2PO_4- and HPO_4^{2}- in a 1:4 ratio with small amounts of $(PO_4)^{3}$- all diffusable. The characteristics of the hydroxyapatite being such that the interstitial fluid and plasma are supersaturated with calcium and phosphate ions at normal plasma pH.

The bones in hyperparathyroidism may show a generalized rarefaction especially in the phalanges and in the lamina dura about the teeth. However, the teeth do not take part in this generalized decalcification as they are not part of the calcium pool of the body—they are metabolically inert. In the classic disease described by von Recklinghausen, fibrosis, brown tumours and cysts accompanied the generalized decalcification. This may lead to fractures and bowing of the long bones and collapse of the vertebral bodies. Degenerative changes also occur in the renal tubular epithelium, heart muscle, and gastric mucosa, and are often followed by calcification. Almost 80% of cases show evidence of renal damage—nephrolithiasis, pyelonephritis, and calcium deposits in and around the tubules.

Clinical Picture—The earliest symptoms of hyperparathyroidism are those of hypercalcemia—muscular weakness, anorexia, nausea, and constipation. Polyuria and polydipsia accompany excessive calcium, phosphate, sodium, and potassium excretion as well as the renal lesion which cause a loss of the concentrating power of the kidney even before the structural changes occur. Often, the first indication of hyperparathyroidism is renal colic or spontaneus fracture. Deafness, parasthesias and bone pain have occurred and weight loss may be marked. One also may find disturbed mental function with behavioral disturbances.

On examination hypotonia, muscular weakness, calcific keratitis (band keratitis), skeletal deformities, fractures, and tumour masses especially in the jaw (epulis), may be found. There has also been reported a few

cases of myopathy involving the proximal muscular groups wasting in character as has been noted in the case presented. X-ray studies may show a generalized decrease in bone density, cysts, tumours, fractures, deformities most marked in the hands, long bones, vertebrae, pelvis, skull and jaw. Bone marrow depression is common with anemia, leukopenia, and occasionally thrombocytopenia. Peptic ulcers occur in many patients with this disorder.

Blood chemistry reveals an elevated plasma calcium, a low plasma inorganic phosphate (less than 3.0 mg.% unless renal damage results in secondary phosphate retention). However, with a high phosphate intake, plasma phosphate levels may be within normal levels coupled with minimal elevation of plasma calcium. Urinary calcium and phosphate is increased and with extensive bone involvement, the serum alkaline phosphatase may be highly elevated.

Diagnosis—The diagnosis of classic cases of von Recklinghausen's disease follows from the clinical picture and the chemical findings of hypercalcemia, hypophosphatemia, hypercalcuria, and an increased plasma alkaline phosphatase. It must be remembered to carry out simultaneous calcium and total protein determinations as marked hypoproteinemia with the accompanying decrease in the calcium proteinate may mask an increase in the diffusable ionized calcium —the fraction of importance here, Serial plasma calcium determinations should be carried out especially if the first determination is not elevated. Lithiasis does occur in mild cases with no other symptoms present and with minimal changes in plasma mineral levels.

Differential Diagnosis—

1. Osteoporosis
2. Osteomalacia
3. Multiple Myeloma
4. Metastatic Malignancies especially breast and bronchogenic carcinoma
5. Renal Osteitis Fibrosa
6. Sarcoidosis
7. Other Skeletal Disease
8. Milk Alkali Syndrome
9. Vitamin D Intoxication

In all, the history is important and the serum phosphorus is normal although rarely it is depressed with hypervitaminosis D. The milk alkali syndrome has hypercalcemia, azotemia and alkalosis without hypophosphatemia or hypercalcuria in patients who ingest high quantities of milk or its products, and other alkalis -$CaCo_4$., i.e. the ulcer patient. Osteoporosis has a normal serum alkaline phosphatase. Paget's Disease of bone is an x-ray diagnosis. Multiple myeloma and sarcoidosis both give hypercalcuria and hypercalcemia with normal serum phosphorus, elevated globulins, and normal serum alkaline phosphatase. Metastatic malignancy of bone may have hypercalcemia and hypophosphatemia but as with all of these disorders a normal lamina dura about the teeth differentiated it from hyperparathyroidism.

Treatment—The treatment of hyperparathyroidism is surgical with complete excision of the offending gland paying particular attention to the surrounding anatomic structures. It must be remembered that following surgery one gets a precipitous drop in serum calcium and tetany can be a serious problem; thus careful monitoring of serum calcium levels is required post-operatively. If any signs of impending tetany occur, intravenous administration of calcium ion is in order.

Summary—A case report of classical hyperparathyroidism is presented. The classical findings of hyperparathyroidism are recorded and presented and also a rare manifestation of hyperparathyroidism, that of a wasting myopathy, is observed.

The author wishes to thank Dr. E. Cholod for his help in proofreading this paper.

REFERENCES

1. Albright, Fuller. Hyperparathyroidism. *J.A.M.A.* 102:1276, 1934.
2. Bischoff, A., Esslen, E.; Myopathy With Hyperparathyroidism. Neurology 15: 64-67, 1965.
3. Bogdanoff, M. D.; Hyperparathyroidism, Am.J.Med. 21:583, 1953.
4. Case Records of the Massachusetts General Hospital. New Eng. J. Med. 273: 1328-37, 1965.
5. Cecil Loeb. *Textbook of Medicine 11th ed.* 1963.
6. Goldsmith, R. S.; Differential Diagnosis Of Hypercalcemia. New Eng. J. Med. 274: 674-7, 1966.
7. Gutman, A. B., Swenson, P. C., and Parsons, P. C.; The Differential Diagnosis Of Hyperparathyroidism. J.A.M.A. 103: 87-94, 1934.
8. Harrison et. al. *Principles of Internal Medicine 5th ed.* p.443-447, 1966.

Question: What is a Zebra?

Answer: the biggest bra you can get.

The Canadian Association of Medical Students and Internes

Ann Breckenridge '69'*

There is little doubt that Centennial year in Canada has revitalized a very latent feeling of nationalism. At this time, when our introverted medical school minds are reaching beyond the interests of London, Ontario, it seems appropriate to direct a little of this interest towards our own national organization, of which, surprising at it may be, we are all individual paying members.

The 1967 CAMSI National Convention was held at the end of September and it is unfortunate that all student members of CAMSI were not able to share in the growing enthusiasm of the delegates during the three days of the convention and their final fling at the EXPO site.

The National Executive must be commended. They had all the drive and ideas essential for the success of our organization, but unfortunately, lacked the communication necessary to get these ideas to the members of CAMSI. Much of this problem, however, lies with the member schools who fail to communicate. At present CAMSI has two secretaries both supplied and supported by the Canadian Medical Association. Their efficiency is much appreciated but we feel the hiring of a permanent administrative staff is a necessity for a national organization such as CAMSI, if it wishes to be effective in continuing its progressive trend. This possibility is being investigated.

For many years Western has remained aloof from CAMSI activities, yet continued to pay the annual fees, dutifully. How our local organization has survived this prolonged period of apathy is a mystery. We cannot overstress the fact that there are many companies and organizations willing to give financial aid to a self-supporting organization such as ours, provided that the individual members feel their organization is sufficiently worthwhile to support it actively themselves. Needless to say, if CAMSI is to successd, it *must* have the support of all of its student members.

The constitution is under revision by committee. The major change will be the idea of "regionalization"—the subdivision of CAMSI into regions of mutual interest with the aim of facilitating communications between member schools on matters pertaining solely to their respective regions.

The University of Laval and the University of Montreal have rejoined the National Organization. May we extend them a hearty "bienvenue" from the Western members who could use a little of their "joie de vivre".

The present yearly financial budget is $300 per school. Net loss last year was $1,700. As you can see, CAMSI is in dire financial straits. Fees from the member schools pay for the administration of CAMSI *only*. With the increasing number of worthwhile CAMSI programmes a concomitant rise in administration costs is inevitable. Finances are under revision and it is hoped that the committee studying fee structure will arrive at a suitable formula.

Last summer 39 Canadian students, (no Western Students), enjoyed the benefits of clerkships in Europe. Students went to Austria, Czechoslovakia, Denmark, U.K., Finland, France, Ireland, Italy, Spain, Sweden, Switzerland, Yugoslavia, Germany and Poland. 60 Canadian students received first hand information on socio-economic and medical conditions in the North West Territories.

The Inuvik summer school proved very successful both for the students and those who received them. Many thanks to the sponsors of the $40,000 programme; the Centennial Commission; CIBA; the C.M.A.; Ontario Dept. of Health and Welfare; N.W.T. government; the Canadian Pediatric Association and others. The 1968 summer school offers an experience in tropical medicine, and for those who imbibe, a taste of the night life in Jamaica.

*Senior Local CAMSI Representative.

Western (Cheers!) in cooperation with Toronto and Manitoba is attempting to compile a list of summer jobs available to medical students across Canada. Hopefully, this project will aid students in obtaining interesting summer employment and foster exchange at the interprovincial level.

77% of 4th year students participated in CIPS (Canadian Intern Placement Service) last year. 81% were placed in hospitals of their first choice. Next year CIPS will require a $2.00 application fee to subsidize computerization of the placement programme.

The problem of Internship salaries was again raised and discussed, (an annual event), but once again no positive action was taken by CAMSI. CAMSI did support the CMA stand on internship pay of $300 per month plus full maintenance or its equivalent—$100 per month for room—$50 per month for food, and requested that the CMA withraw accreditation from hospitals not complying with this minimum. The Ontario schools agreed unanimously that applications for internship be withheld through CIPS, however the motion was defeated. Ontario feels strongly the CAMSI should take a stronger stand on internship—its "raison d'etre". The other member schools, three of which have their own intern placement programmes, seemed unwilling to deviate from the apathy which surrounds this problem. At a conference of the Ontario schools, on November 4th, 1967, it was decided that a brief be sent to the Ontario Hospital Services Commission indicating the support of the CMA recommendation by the Ontario Medical Schools and the Ontario Medical Association

Last year CAMSI conducted a nation wide drug appeal, collecting over $200,000 worth of drugs which were sent to mission clinics in Haiti, India and Brazil. Western, in conjunction with the University of Montreal, is directing the 1967-68 drug appeal. The appeal for supplies and/or donations is being directed to pharmaceutical firms and physicians all across Canada. So far the response has been very encouraging. Hopefully the students at U.W.O. will be eager to spend a few hours after Christmas for the local collection of these drugs and their classification, packing and crating for shipment to Montreal.

There is no doubt that CAMSI is progressing. Projects being undertaken offer invaluable experiences to the student. A strong organization both at the national and local levels provides a means for expression of the views of the student and encourages the exchange of ideas across Canada. If CAMSI does not gain full support of its local organizations it will remain an unknown entity to many unfortunate members.

Your local representatives are keen but green—we need your interest, welcome your suggestions, and would appreciate a small amount of your time.

It has been said before

It is impossible to impart the entire contents of medical and surgical science to the student. You cannot even impart the content of any single subject in the curriculum.

The most you can expect is to give to the student a fair knowledge of the principles of the fundamental subjects in medicine and the power to use the instruments and the methods of his profession; the right attitude toward his patients and toward his fellow members in the profession, above all, to put him in the position to carry on his education, because his education is only begun in the medical school and therefore our aim should be to enable him to complete his education, which goes through all the remainder of his life.

William H. Welch, 1910.

Far more wholesome would it be to admit once and for all the difficulty of learning medicine and the impossibility of teaching it. A. Flexner, 1925.

Student Conference on Medical Education

Bill C. Clark '70'

INTRODUCTION

The following is a brief report by Bill Clark '70' on a faculty-student conference concerning medical education, held September 30 and October 1, 1967, at Scarborough College in Toronto. The program was arranged and administered by the medical student government of the University of Toronto with the support of CAMSI and the O.M.A. The proposed "new curriculum" at the U. of T. was the major topic of discussion with those representatives from other medical schools serving essentially as "observers". A wide variety of topics was discussed, (both formally and informally), ranging from the philosophies of a medical education to the distribution of printed lecture notes to all students for every course. Representing this University were Bill Clark '70', Richard Johnston '69', Henry Rubenstein '70', and Ron Wexler '70'.

Henry Rubenstein '70'

The aim of the conference was "to educate the students as to the changes taking place in the realms of medical education and in particular at the University of Toronto." The content of the proposed U. of T. curriculum is intended to:

1) Convey to the students major concepts in broad areas of subject matter;
2) To organize instruction on the basis of subjects as systems, rather than based upon the conventional departmental divisons.

The systemic approach facilitates the teaching of basic science, pathophysiology, and clinical aspects of patient care by teachers with common interests but differing points of view. It was proposed that the medical curriculum be structured on the basis of the following three interrelated periods of study:

PERIOD I—normal biology of man - 1½ years

PERIOD II—disease in terms of altered human biology - 1 year

PERIOD III—patients in relation to altered biological processes - 1½ years.

This type of proposed curriculum is very similar to the vertical method of teaching that McMaster University intends to undertake where emphasis is placed on the patient as a whole rather than as a series of individual conditions. It was felt that this approach provides a continuity so that the curriculum is an integrated unit, not a series of hurdles to be surmounted and left behind. Furthermore, it serves to prevent unnecessary repetition and gaps in the presentation of the subject matter.

In essence, the U. of T. proposal is a vertical core curriculum with electives in medical and non-medical subject matter. Such a liberal scheme of education, on the drafting board, is difficult to refute as it is most stimulating for both faculty and students. However there are heavy implications. This type of scheme necessitates:

1) increased facilities
2) a greatly increased faculty staff
3) complete reorganization of the faculty and students who do not rely on "spoon-feeding".

These three areas are large gaps to fill, and the financial consequences are probably the most prohibitive factors in the success or failure of this venture. Nevertheless, if this type of programe evolves to benefit both student and teacher, it may solve many of the present pit-falls of medical education as outlined in the 1964 study by the Royal Commission.

Although emphasis at this conference was intended to be given to the new Toronto scheme, the panel discussion by faculty members of the University of Toronto touched o nmany of the common problems of medical education. Group discussions followed and centred around existing difficulties rather than possible ones that the Toronto system might

encounter. Both the panel and discussion groups were interesting and at times humorous. It appeared that there was a definite element of depersonalization and lack of effective communication in the "old" Toronto curriculum, with a "we-they" attitude of faculty-student interaction being evident at times. This was particularly seen in the informal discussion groups, and convinced the members of our delegation, that U.W.O.'s lines of formal and informal communication makes for a better educational environment. In short, many of the problems facing medical educators at the University of Toronto appear to be a function of the school's immense size.

The conference thus served as an effective re-evaluation of many ideas concerning the educational process at medical schools in Ontario and in particular Toronto. The purpose of this conference was not to arrive at conclusive suggestions but rather to serve as a forum for differing views on medical education.

The indirect benefits of sponsoring this type of conference for a medical school are highly valuable. It made evident to all the "instant" innovators present, that there is no one basic problem, but rather, complex areas where the interchange of ideas is necessary. Furthermore, the most beneficial results seem to eminate from free exchange between faculty, students, and administrators.

Festival of Medical Television Education

Thomas N. Wilson '69'

'Festival' was held at Talbot College, The University of Western Ontario, September 7-9. At that time I took a personal diary. This report is not a synopsis of that diary but a series of personal impressions. The article was not specifically researched so that everything that happened would be reported. What I am writing is correct, but only as far impressions are, filtered by time and distorted by more recent experiences.

My first contact with Festival of Medical Television Education was in August when I received a telephone call from Dr. Peter Rechnitzer. He told me that he was organizing a festival, just like the Cannes Film Festival—with entries from Canada, the United States, United Kingdom and France. The entries would be videotape productions which were part of regular series of television programs for continuing Medical Education. At the festival these productions would be presented and adjudicated. Someone associated with the production of each entry would be present at the festival. These delegates, along with television and medical people from centres which had an educational television organization, or were interested in setting one up, would attend the three-day festival. Suffice to say that Dr. Rechnitzer wanted two medical students to be at the festival. I wasted no time saying YES ! !

I later learned that Festival was truly a large scale affair. There were eighteen submissions, including entries from B.B.C. Television; Boston Medical Reports; U.C.L.A. Centre for the Health Sciences, University of Paris, and the only Canadian entry, University of Montreal. Since U.W.O. was the host centre, there was no submission from here. The original eighteen entries were pre-screened and eight films were selected for presentation and final adjudication at the festival. The adjudicators judged the presentations on three criteria; good medicine; good teaching; good television. The diversity of backgrounds of the adjudicators added greatly to the depth and perceptiveness of their criticisms. They were, Mr. Lister Sinclair, C.B.C., Toronto; Dr. David Bates, Faculty of Medicine, McGill University; Dr. Chester S. Keefer, Boston University School of Medicine; Mr. James Murray, C.B.C. Toronto; and Dr. Hilmon Castle, President of the Association of Medical Television Broadcasters, from Salt Lake City,

Utah. Festival of Medical Television Education was the first gathering of its kind ever held, and it set a high standard that subsequent festivals might find hard to repeat.

The daily sessions at the festival consisted of viewings of the videotape presentations, followed by adjudicator's remarks and discussions from the floor. There were special workshop panel discussions dealing with establishing and evaluating a Medical ETV Series. Fun times consisted of a welcoming reception, a trip to Stratford for dinner and a performance of *"The Merry Wives of Windsor"*, and a formal awards dinner on the last evening. The winner of the festival announced at this awards dinner, finally proved to be 'Osteoporosis', produced by the British Broadcasting Corporation.

Festival was well organized. Oliver Robinow '69', the other medical student, and I were the last members of the team that had been working on Festival for about one year. Our job was non-specific. We were to be there if we were needed, "to help things run smoothly". The smooth operation of the festival was assured long before we arrived though, and the fact that we ran a few errands merely made our time more enjoyable, and increased our opportunities to meet people.

Eventually, our function was mainly one of meeting people at the airport or train station, and of generally being of assistance to the delegates at the festival. One man and his wife missed their plane and arrived in London by taxi at 11:30 p.m. without luggage. There is only one store in London that sells toothbrushes, razors, and razor blades after midnight, (corner of Adelaide and Central), and it took us two hours to find it. We made an extra trip to Stratford to pick up the camera of one of the delegates who had left it there the night before. We were generally successful in helping out, Oliver even carried on a conversation in French with a delegate from the University of Montreal all the way from the CN station to Delaware Hall at 2:00 a.m. He was shattered later though, when he learned that this delegate, Dr. de Vaillancourt spoke English perfectly—with a British accent!

We found that the delegates were truly a mixture of personalities. There were television people, usually younger and better dressed, (beard optional); medical education people, older, less glib, more conservatively dressed; and a few whose interests and backgrounds overlapped so much that it was ridiculous to try to stereotype them. Many of the delegates brought their wives. For some, it was their first trip to Canada. The background of the delegates regarding the interest of their home centre in Medical Education television varied from those whose centres have been producing medical education programs for up to ten years, to representatives whose home centre had nothing but a plan that money might be available for such a project at some time in the future. This latter group probably learned a good deal more than the former at the festival, but the chance to compare techniques and discuss problems at all levels of production was available to all.

From our positions as delegate-helpers, Oliver and I were able to assess the Festival from many points of view. We sat in on the private adjudicating sessions, and we listened to the discussions from the floor which followed each videotape presentation.

For example in discussing a particular tape one adjudicator noted that there must have been a different producer for two of the segments in the presentation. He pointed out that in one segment a graph was presented complete, while in another segment of the same tape, a graph was shown flowing onto the graph paper. The use of motion in presenting the graph made the point the graph

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If you have a tattoo read this

"Recently an incident was related to me that happened in one of the better hospitals in this country. A young girl about 18 years of age came into the emergency room in labour and was carried directly to the delivery room. It was noticed, during examination that she had a tattoo design on her arm. When put into the stirrups, warty condylomata of the vulva were noted. The young lady was delivered by a resident in obstetrics who later wrote on the chart as the likely diagnosis for the warty condylomata, (1) a malignancy, (2) granuloma inguinale. The idea that these condylomata could possibly be of syphilitic etiology never occurred to this fellow.

He should have known that any person with a tattoo mark on him is an apt candidate for syphilis, and that any female having a tattoo mark HAS syphilis until proven otherwise. These were standard axioms at the Universiy of Pennsylvania."

Dr. A. M. Johnson, Arch. Environ. Health, 1966.

was attempting to demonstrate more meaningful and comprehensible to the viewer. Technically, a moving graph is easy to produce, and the use of this technique in the second segment of the tape showed a more efficient use of the medium.

One discussion, initiated from the floor, dealt with the responsibility of medical centres to use the best medium possible when recording events which are rarely seen in medicine. The discussion sprang from a presentation dealing with the surgical separation of Siamese Twins. It was generally conceded that colour film would have been a better choice because in black and white videotape, the surgical procedures were not as well documented as might be hoped for in such a rare operation. The production itself was good, the fault was in the choice of medium.

The presentation that was most impressive was a short film which dealt with the "behind the scenes" organization for a production made by the University of Newcastle Upon Tyne and Tyne Tees TV. For a sequence showing a patient in bed, they actually built scaffolding outside the hospital up to the patient's window, and set up a camera looking in from outdoors. Good television technique demanded two cameras to shoot the sequence, and the patient's room was too small to take both of them so the second camera was set up in this unique way. The producers did not want to sacrifice good television technique simply because of physical barriers, and because this was 'only' educational television.

Aside from having an enjoyable time at Festival, I learned a good deal about television production, and the applications of television to medical education. My thoughts on the future of medical education television lean heavily on the remarks of Lister Sinclair, the head adjudicator for the festival and guest speaker at the Awards Dinner. A major problem facing continuing medical education, is in motivating physicians to improve their knowledge in current medical techniques. There should be no argument that doctors are a busy lot, and that up to now most methods of continuing education have been time consuming, boring and not necessarily immediately rewarding. Surely, with the combined approach of good medicine, good teaching, and good television, continuing education will not be such a burden on doctors—in fact it might even be enjoyable.

Within the field of production of medical education programs, Mr. Sinclair sees the whole medical profession at a disadvantage. He feels that most creativity is bred out of a doctor by the time he graduates. The good practitioner is the doctor who knows well the most commonly prescribed therapeutic measures used in treating patients. Bad television has no advantage over the best methods of education which have been used up to now. The problem is that television as a medium of communication needs creatively expressive people to use it well. To make effective medical television then, a super-specialist group of people are required. These people must combine knowledge of new medicine with all of the newest and latest knowledge in communications. This of course was the challenge facing everyone attending 'Festival'.

In conclusion, I must say that the daily sessions were so interesting that the delegates' wives attended most of them. There were several members of the Faculty of our Medical School in attendance and taking very active part in the discussions. Finally I must emphasize that 'Festival' was a great success. There was that air of euphoria that goes with the knowledge that one is seeing something new, something big, something whose potential is not, by any shade of the imagination exploited to its full as yet.

To polish or not to polish, that is the question

In discussing the difficulties encountered by the G.P. when persuading patients to have routine pelvic examinations, as compared to the patient who goes to a Gynecologist with the obvious intention of having an internal examination performed, Dr. B. Ragula gave the following analogy:

"The Gynecologist inspects the living room shortly before the party while the General Practitioner sees the same room on a regular weekday or shortly after the party.

Perhaps there is some advantage. The chance of detecting malignant cells in an unprepared person are much higher than on those with an over-douched and *polished* vagina."

Dr. B. Ragula, 'Cytology in Family Practice'.

Canadian Family Physician, October, 1967.

Student Summer Research

The response to the request by the Journal in the preceding issue for submission of brief articles relating to student research projects has not been overwhelming. Once again we must reiterate that *all* student contributions will be welcomed.

Martin L. Throne '69', Editor.

A Study of the Relationship of the Spleen to Morbidity in Chronic Lymphocytic Leukemia

The purpose of this survey was to attempt to see, by way of retrospective study, the role played by the spleen in patient morbidity associated with chronic lymphocytic leukemia. From this, it was hoped that some conclusions could be reached regarding the possibility of splenectomy as an initial procedure in the treatment of patients with chronic lymphocytic leukemia. Moreover, it was hoped that one might be able to ascertain some guide lines for for determining in a prognostic fashion which patients would be most apt to benefit from splenectomy early on in the course of their disease.

This study was undertaken in the light of a recent paper[1] which pointed to rather striking success in response to chemotherapy of splenectomized patients. While no one has actually stated that splenectomy increases length of survival, it is appreciated that if cytopenias can be corrected, and response to drug therapy can be more readily achieved in the splenectomized patient, as suggested in this paper, then it is conceivable that in certain cases life migh be comfortably prolonged by minimizing the complications which are often associated with hypersplenism.

METHOD

A chart review covering the 10 year period from 1956 to 1965 was undertaken. The charts reviewed were exclusively those of the patients with diagnosed chronic lymphocytic leukemia seen in the London Clinic of the Ontario Cancer Foundation.

In all, the charts of 38 patients were reviewed. A flow-sheet was kept on each patient reviewed. All flow-sheets contained identical information; this consisted of the date, O.C.F. number, name, age, first symptoms, remarks, treatment, spleen size, and the following haematological data: hemoglobin, white blood count, reticulocyte count, differential, platelets, and bone marrow.

RESULTS

A total of 38 patients were reviewed. Of these, 17 were of little or no use for one of several reasons:

1. Insufficient Follow-up.
2. Death Occurring very shortly after first seen, either due to their disease or to some seemingly unrelated cause, e.g. C.V.A., embolism.
3. Relatively little information present in the charts, either due to lack of specific dictation on the part of the examining doctor, or lack of routine blood and/or physical examination during the patient's visit.
4. Patient was seen only as a consultation, and then referred back to own doctor.

Of the remaining 21 suitable patients, 7 were alive and well as of December 31st, 1965, (the arbitrary cut-off point), and the status of three others is unknown due to subsequent poor follow-up. The remaining 11 patients are deceased.

Unfortunately, the information regarding the spleen obtained from these 21 patients was at best equivocal. Of the 21 patients, those showing relatively little or no hypersplenism as defined, totaled 8. (Hypersplenism here is taken to mean cytopenia, be it of one or all

cell series, in association with splenomegaly. Complications such as pressure symptoms, splenic pain, or bleeding are considered to be associated factors and as such are of themselves also considered in this paper as hypersplenic manifestations. Splenomegaly alone without associated cytopenia or physical symptoms is not considered in this paper to be hypersplenism. Most of the patients had enlarged spleens, but this does not necessarily mean that they had hypersplenism.) Those with hypersplenism as defined totaled 9. One patient had a splenectomy. And finally, three patients must be recorded as undetermined as regard the role played by their spleen. The reasons for this latter group are as follows:

1. One patient had gross splenomegaly, but heavy marrow infiltration as well and therefore the role of the spleen was doubtful.
2. Two patients had hemolytic episodes, as the only troubling manifestation, but the role of the spleen in hemolysis is hard to assess, since other sites in the reticuloendothelial system may have been responsible.

In all, I feel that retrospectively only three out of the 21 suitable patients would in all probability have benefited from splenectomy. Two of these, Mrs. F.M., O.C.F., 58/761 and Mr. H.S., O.C.F. 58/1381, suffered consistently from anemia and thrombocytopenia, both requiring multiple transfusions and with poor results from chemotherapy. The third patient Mrs. D.C., O.C.F. 58/333 had a progressively enlarging spleen which eventually filled the entire left side of her abdomen, causing great physical discomfort and interfering with nutrition to the point of cachexia.

CONCLUSIONS:

The answer to the question as seen in the results seems to be that there is no clear-cut answer, i.e. one cannot prognosticate as to which patient will benefit from splenectomy. Some patients with greatly enlarged spleens had virtually no hypersplenism, while other patients had great difficulty. Therefore spleen size alone is of no help. Furthermore, one cannot prognosticate which patient will respond well to chemotherapy and which patient will not; patient's response to any treatment, be it chemotherapy, radiotherapy, or surgery seems to be strictly an individual one, and does not necessarily apply to any other patient in a group. Thus, one patient may respond brilliantly to Prednisone treatment of a hemolytic episode, while another may require splenectomy, while yet another may not respond to either.

The best example of the dubiousness of splenectomy can be seen in comparing Mrs. E. DeJ. O.C.F. 64/619, the one splenectomized patient, who is still alive and well with no need of chemotherapy as of yet, with Mr. G. S., O.C.F. 64/1223, a patient with an enlarged spleen, who is still alive and just as well, with no complications and also not in need of any chemotherapy presently.

It is suggested that the only way to settle the question of the value of splenectomy is to do a prospective study. (A double-blind experiment would be impossible, since a splenectomy scar is incriminating evidence). In this study, alternative patients would be splenectomized and their ultimate progress reviewed in a similar manner over 10 years. Again it must be kept in mind that patient response is an individual one, and that the patient who has done magnificently without his spleen, might have done just as well with his spleen. However it is hoped that overall group statistics might be statistically significant. If such a study is not possible, an alternate recommendation regarding splenectomy for the present would be as follows:

Any new patient with a palpably enlarged spleen, who continues to show evidence of hypersplenism over several months on the

basis of blood work and physical signs and symptoms, should be considered for splenectomy early on, and the experience obtained in treating such patients might soon indicate whether splenectomy is of any value in making for easier management, both objectively on the part of the physician and subjectively on the part of the patient.

REFERENCES:

1. Nies, B. D., Creger, W.P., Tolerance of Chemotherapy following Splenectomy for Leucopenia or Thrombocytopenia in patients with Malignant Lymphomas. Nies B. D., Cregar, W. P., Cancer 20: No. 4, 1967.
2. Crosby, W. H., The Spleen and Chemotherapy of Malignant Lymphoma in 'Cancer Chemotherapy', Grune and Stratton, N.Y., 1967.

Lorne J. Brandes, '68'
Supervisor: Dr. W. B. Barton,
Department of Medicine.

Supported by a Medical Research Council of Canada Grant.

Research Grants

Mention of the granting bodies kindly supporting these projects was inadvertenly deleted from the preceding issue.

1. "A Clinical Study of Drugs in the Treatment of Parkinson's Disease", Supported by a grant from Burroughs Wellcome and Co. (Canada) Ltd.
2. "Studies on the Effect of Allopurinol on Platelet Aggregation", Supported by a grant from the Medical Research Council of Canada. Burroughs Wellcome and Co. (Canada) Ltd. kindly donated the drugs.

Definition of a Practical Nurse: An R.N. who will only take care of a rich old man.

Then there were the two cocci who made love in dead Earnest.

A psychiatrist to his patient, "Now that's just the sort of thing you must break away from. Next time you miss a session *don't* bring me a note from your mother."

It's lovely to lie in the long grass, listening to the low monotonous hum of incest in the woods.

URINALYSIS

Some bring their sample in a jar,
Some bring it in a pot,
Some bring a sample hardly ample,
While others bring a lot.

Some hide it in a paper bag,
Some wrap it like a treasure,
Some, quite undaunted, proudly flaunt it,
As if it gives them pleasure.

Some cork it up so tightly that
It's quite a job to spring it,
Some let it slosh, almost awash,
And some forget to bring it.

Annon.

THIS SPACE IS STILL RESERVED FOR 'LETTERS TO THE EDITOR'. ARE WE TO ASSUME THAT EVERYBODY IS COMPLETELY CONTENT WITH THE JOURNAL AND ITS CONTENTS?

The Great Race

The Centennial Voyageur Canoe Pageant

Peter A. Clark '69'

INTRODUCTION

One . . . two . . . three . . . switch. We've been on the water now for seventeen hours and I'm sure that Red Rock is just around the next point. We've been going since four this morning; we raced 51 miles to Black's Wharf and then went another 37 because the weather was so good. It doesn't look as if we'll make it because there's a storm closing in on us from behind. It's dark now and the stench of pulp and paper is high with the wind—we must be close. There's a log boom ahead, the opening is on the right, we're through. There are some lights on the shore to the left; suddenly the stroke picks up and the canoe lurches forward for we are all glad that the day is finally over. Hungry, cold, tired and wet, but happy and proud for we've done something that hasn't been done for hundreds of years; we're crossing Canada by canoe.

Many different events have been held across Canada this year, and perhaps the most exciting was the Centennial Voyageur Canoe Pageant, a 104 day marathon from Rocky Mountain House, Alberta, to Expo in Montreal, Quebec. The route was that used by the first voyageurs in opening up the treasures of the Canadian North—3283 miles of river and lake paddling and 60 miles of portages. Then teams consisting of eight provinces (P.E.I. and Nfld. excluded) and the two territories (Yukon and the North West) made the journey. Each canoe was named after the patron voyageur, the Ontario choice being 'William McGillivray', the Chairman of the Board of the North West Company.

What a spectacular sight it was to see these young, muscled Canadians exhausting themselves, both physically and mentally, racing for hours and hours without stopping. Sixty strokes a minute, switching side every thirty strokes; it was no picnic! It was an ordeal, but at the same time it was proof that our youth could withstand the perils that our predecessors endured.

CHOOSING THE TEAM

Ontario spent more than two years training a team for the canoe pageant. The summer of '65 had a race from North Bay to Gananoque, while the summer of '66 had the Lindsay-Lakefield and Atikokan Canoe Derbies. Prospective paddlers were then asked to participate in the '66 trials—a 10 day race down the Fraser in B.C., and an 8 day race from Lachine to New York City. However, this still left about twenty people trying for nine positions. Lloyd Percival of Toronto was then called in to devise a training program for the winter months that would closely simulate the stresses of marathon racing. In April of '67, the final team was selected on the basis of paddling ability, strength, endurance, and compatibility. The survivors were—Derek Arbuckle, a Toronto school teacher; Greg Cowan and Glenn Fallis, students at Ryerson; Joe Derochie, a Sudbury miner; Don Meany, an Atikokan miner; Ed van den Hoek, a Brampton electrician; Bill Peruniak, the principal of Atikokan High School, and now an Assistant Dean at Queen's his son Geoff, a high school student; and myself. We also selected a cook Bob Gauldie, who would have been able to step in had anyone become ill.

But most of the credit must go to S/L John Mitchell of Toronto, who supervised the training since '65, and was responsible for choosing the team. He was appointed 'Chief Voyageur of Ontario' and as such, was coach, trainer, and administrator.

EQUIPMENT

Our canoes were modelled after the old voyageur birch bark freighters. They were 25' long, 4' wide, and 19" deep. They were made

of fibre glass and weighted 375 pounds empty. They had six seats across which we would slide on the switches. One fellow estimated that he slid 22 miles sideways, wore out five pairs of jeans and various other related items. In the boat we would eat canned fruit and highly sugared liquids. This was done by means of a long rubber tube attached to a thermos, the idea being not to miss any strokes. The rate was never under 60 per minute and would often be as high as 78-80 in a sprint.

There were six in the boat every day so the remaining three would strike camp, drive to the next campsite if accessible, and set up camp. Every third day one was on camp duty. Usually all the gear would go in the truck, (a 3 ton army vehicle on loan from the government), but there were many nights when the road party could not reach us and on these days, the equipment went in the canoe with us.

THE RACE ASPECT

The race was run on the principle of elapsed time—the team with the lowest total elapsed time being the winner. There were 40 "lap races"—days where we would begin together, race all day and be given individual times. The other 64 days were divided into "brigades and Transits". A brigade was a day when we began together, stayed together, usually for safety reasons, (as on Lake Superior), and received the same time. Transits were days when we would leave at will, provided we were at the next predesignated spot by a specific time. These days (brigades and transits) were usually completed by having a sprint race, for which individual times were taken. Thus, the only way to make time was on laps and sprints.

Incentive for the race was mainly physical and emotional satisfaction, however, material rewards were available. Each paddler received $8.00 per day for food allowance. Each paddler who crossed the finish line at Expo received $1,000.00. However, for the first three teams, there was prize money ($1,500 for 1st, $1,000. for 2nd and $500 for 3rd—per man). The sprint money was divided proportionately among all ten teams (from 20% for 1st to 4% for 10th).

HIGHLIGHTS OF THE TRIP

The banks of the North Saskatchewan were still white with snow when the race began on May 24th at Rocky Mountain House, Alberta. The first day was a 49 mile lap race to Alder Flats, in which Manitoba and B.C. walked away from the rest of the teams; Ontario was 5th. This was to be the pattern in many races where the more experienced crews would pull ahead of the less experienced. The rain that night turned the road into muck—the trucks took 10 hours to get out the next morning whereas the canoes made it to Drayton Valley in a little under 4 hours. Alberta afforded us a unique experience. We were paddling down the river one day and ahead of us loomed a monstrous black cloud. We put on our rain gear in preparation for the downpour which never came. Looking around at each other we realized what had happened. It was a dust storm, and we were black with dust!

Saskatchewan offered similar river paddling. Sandbars presented a real hazard. In leading a lap one morning, we misread the water, ran over a sandbar and lost 6 positions in under a minute. Mistakes were costly—we had to learn quickly.

We then set out for Fort Carlton, a small rural community of 150 inhabitants. When we arrived, there were 12,000 people waiting for us, exemplifying the enthusiasm that we encountered all across Canada. It was the smaller communities that gave us the warmest receptions—The people were friendlier and intensely interested in our voyage. Dances, banquets, bar B.Q.'s, and fishfrys were held in our honour. The menu's varied from moose and bear, to beaver, whale, trout, duck and pheasant. It was in Cumberland House, our last stop in Saskatchewan, where we feasted on "green" moose and sturgeon. By "green" I mean that the moose had been killed the day before. Consequently, most of the boys were sick the next day—not very pleasant when you consider that it was our longest paddling day (96 miles to "Le Pas").

We reached Manitoba and left the North Saskatchewan behind—but now our obstacles were augmented—the lakes of Cedar, Winnipegosis and Manitoba. Lake paddling is flat water—that is, there is no current. Therefore, the teams that pull hardest, go the fastest, and, providing they are going in the right direction, will win.

There were some long portages—East Mossy was the first killer—4½ miles of hot blackfly-tormented walking; our first real taste of portage—400 lb. of boat and 100 lb. of gear. Others were Grassy Portage and Meadow Portage where we slopped through mud up to our knees for miles.

The hardest day was a 65 mile lap from East Mossy on Lake Winnipegosis to Duck Bay. This was a 12 hour run into strong winds and four foot waves that never seemed to end! Often there was no land to be seen. Then a a tree—and another tree off in the distance. We just didn't seem to be moving; the harder we paddled, the slower we'd go. It was a real uphill struggle, mostly against ourselves.

In time we reached Delta, a "wood tick" paradise at the southern tip of Lake Manitoba. I went to scout the Assiniboine River and when I returned, the boys spent an hour or two cutting and burning the wood ticks from my skin. From Delta to Portage la Prairie was 18 miles of land—our longest portage. We were permitted to use wooden wheels on the carry and this made things considerably easier.

Then the 79 mile lap on the Assiniboine River—a narow, shallow, winding, dirty river. It was common to see dead animals floating beside the boat. The heat was unbearable—it was all you could do to breathe, let alone exert yourself. In 8 hours I lost 18 pounds!

We helped Winnipeg celebrate July 1st and then pushed on down the Red River, across Lake Winnipeg, and up the Winnipeg River. The scenery improved dramatically in this area—the shore became rocky and evergreens began to appear—no more dirt cliffs, sandbars or filthy water.

We lapped into Ontario, (North Boundary Falls), and putting out maximum effort and then some, came second to Manitoba—we were so glad to get home! If you will recall, we started out in 5th position, had moved into 4th, and were now pushing Alberta for 3rd. This came to a sudden stop on Lake of the Woods. Twenty miles out of Kenora, our bowman collapsed, and had to be removed from the boat. We fell to 6th position for that day, losing 40 minutes and 3rd position to Alberta. The second day on the Lake was just as interesting as the first—the entire brigade was held up on an island for 6 hours because of 15 foot waves coming from our side. The wind would not subside so we pushed through, reaching Rainy River at 9:00 p.m., fifteen hours after we had left that morning.

The border waters in the Quetico Provincial Park, (between Ontario and Minnesota), were, by far the most picturesque we encountered. From the cool of the early morning fog, the many small portages, (all quite difficult) to the fiery sunsets; everyday was a pleasure. Then came the Grand Portage; 8½ miles of swamp, mosquito infested bog. I had mixed feelings when it was over—physically glad, and yet sorry to see it done.

Our next task was the formidable Lake Superior; formidable for two reasons—fog and rough water. For safety reasons, every day was classified as "Brigade" and navy escort ships were provided. But for two solid weeks it was dead calm. This enabled us to get far ahead of schedule, as we often did two days paddling in one. Because of these commitments, we were left sitting off shore, bored and restless. This was the low point of the trip!

We passed the Sault and reached Little Current on Manitoulin Island without incident. The next day, our last on the Great Lakes, was a 50 mile brigade to the mouth of the French River. To renew our respect for the awesome power of the Lakes, it stormed! Once again there were 15 foot waves on the beam. We had survived the worst, we thought, and were calmly crossing the last bay, when suddenly a mountain of water crested and crashed over top of us. Again and again they pounded down, nearly swamping us. Madly bailing, we surveyed the situation. We were in a bay of shoals. Somehow, we made it to shore, wet, scared and little less than complacent. It had been all too easy for too long.

Up the French, across Lake Nipissing to North Bay, up the Mattawa to the Ottawa—we now had it licked! We stopped briefly in Ottawa to be presented to Governor General Michener, and Prime Minister Pearson, and pushed on . . . to Expo. No sooner had we arrived, then we were hurried into the canoes for the Expo sprint. This was a thrilling event in which Manitoba and B.C. fought it out for first place while we out-muscled Alberta for 3rd. A quick change, a ride on "La Balade" to the Pavilion "d'Acceuil", and a gala reception and banquet—we didn't even have time to sit down and realize that the job was done. It was a let-down, hearing the speeches and seeing the faces for the last time.

After the "Paddler's Breakfast" the next morning, September 5th at Lachine, we parted reluctantly, each going his own way, each a better man than when he started; proud to be voyageurs; proud to be Canadians.

SUMMARY

Said one of these men, long past seventy years of age: "I could carry, paddle, walk, and sing with any man I ever saw. I have been twenty-four years a canoeman, and forty-one years in service; no portage was ever too long for me. Fifty songs could I sing. I have saved the lives of ten Voyageurs, have had twelve wives, and six running dogs. I spent all my money in pleasure. Were I young again, I should spend my life the same way over. There is no life so happy as a Voyageur's life". Would I do it again? Wouldn't you?

A man was taken to the Bunny Club by his Playboy friend. "Hey, tell me about that one", he breathed, pointing at a gorgeous hostess.

"Oh, her," said his host. "She's 38, 24, 36, 54."

"What's the 54?"

"That's her I.Q.!"

Book Review Section

Larry Kelly '68' and Mario Castelli '68'

The purpose of this section is to review new books on subjects which are of particular interest to the medical student and also to include information from the Medical Library. While it is acknowledged that full coverage of all new volumes cannot be made it is hoped that this section will aid you in your new book purchases and reading program.

THE EYE IN GENERAL PRACTICE:
C. R. S. Jackson

This is a simply written, excellent little book, not a complete ophthalmology textbook suitable for a specialist, but rather, is a good description of the commoner eye conditions with their diagnosic signs and treatment. It is extremely well organized and well illustrated both in black and white and colour. Each chapter covers the anatomy and physiology of the particular condition and then proceeds to describe the symptomatology, etiology, general incidence, and then briefly the treatment. A book of particular interest to the student, and to the Family Practitioner who wants a simple, straightforward review, or help in the interpretation of reports he receives from a specialist.

Published in Canada by The MacMillan Company of Canada Limited, Toronto, 1967. 170 pages. Well illustrated. $5.00. L.J.K.

CUNNINGHAM'S MANUAL OF PRACTICAL ANATOMY—VOLUME 1, UPPER AND LOWER LIMBS:
Revised by G. J. Romanes

This edition was revised to remove extraneous material, to clarify previously cloudy points and in so doing has removed much of the repititious material of previous editions. Although small, almost pocket-size, this text does not lose any of the detail necessary for an adequate understanding of anatomy. In fact, the small text, due to the fact that this volume covers only the upper and lower limbs, makes it more practical to carry into the laboratory. The illustrations are clearly and simply drawn and labeled. The use of heavy print, used for structures in the written text, make it easy to pick out wanted structures at a glance. A good text for Anatomy students. Oxford University Press, Toronto, 1966. 256 pages, $4.25. L.J.K.

STEREOSCOPIC ATLAS OF MASTOIDOTYMPANOPLASTIC SURGERY:
H. F. Schuknecht, W. D. Chasin, J. M. Kurkjian

This is a brief and very readable, well organized textbook which gives a comprehensive coverage of the subject. The 89 pages of text are augmented with 51 figures and 70 Stereoscopic views in full colour on 10 View Master Reels complete with a View Master Compact Viewer. This text is intended for otologic surgeons as a guide and reference. To keep the train of thought clear, the authors have omitted historical reviews, acknowledgements of priority, credit lines, expressions of divergent viewpoints and discussions of controversial issues, and biographical references. The index is simple but good. This book can be read with benefit by any undergraduate medical student, but unless one is contemplating postgraduate work in this field, the cost is prohibitive.

C. V. Mosby Company, St. Louis, 1966, $26.50. P.J.L.

ALCOHOL PROBLEMS—
A REPORT TO THE NATION
By the Co-operative Commission on the Study of Alcoholism.
Prepared by Thomas F. A. Plaut

This brief but very comprehensive report dedicated to the late E. M. Jellinek, a member

of the Commission, is an absolute *must* for anyone in Medicine particularly those involved in Family Practice, Psychiatry, or the Social Service Field. This report is well written and well documented and makes an evening's easy reading. The objectives of the report are "to help develop a better climate for discussion and research and action on all aspects of alcohol problems . . . to improve the care and rehabilitation of problem drinkers . . . to reduce the rates of problem drinking." (p.37) The objectives are well covered. Highly recommended. Oxford University Press, New York, 1967. 200 pages. $5.25. L.J.K.

A SYNOPSIS OF CANCER (GENESIS AND BIOLOGY):
Wilfred Kack

This small volume is compactly and systematically set out, beginning with a section on the nature of cancer, and leading into interesting epidemiological, geographical, chemical, occupational, genetic, viral and immunological co-relates of cancer. Experimental and historical aspects are included, and the extensive references are excellent. This esentially descriptive book is easy and enjoyable to read. The complete index makes this wealth of information readily available. John Wright and Sons Limited, Bristol, 1966. Published by Macmillan of Canada, Toronto. 280 pages, $7.50. M.F.C.

SYNOPSIS OF NEUROANATOMY:
H. A. Matyke and F. M. Folty

This paperback consists of twenty-one, brief, simple, clearly illustrated chapters. Fundamental principles are stressed in a concise readable style, and the authors' goal to produce "a clear, concise, and yet comprehensive account of neuroanatomy" is more than achieved. The book lacks discussion on the peripheral nervous system and references but this is in keeping with the aims of the book. Oxford University Press, Toronto, 1967. 149 pages. $3,85. M.F.C.

ACID-BASE PHYSIOLOGY IN MEDICINE—
A Self-Instruction Program:
R. W. Winters et al.

This volume in the increasingly popular 'programmed learning' series consists of ten comprehensive sections beginning with elementary principles and concluding with clinical disorders. Frequent summaries, a very useful appendix on the principles of acid-base analysis, and excellent illustrations are included. The frequent, up-to-date and appropriate references in themselves make the book a valuable asset for specialist, student and practitioner. Also, the price is right! Published at cost to the Medical Profession by: Bach-Simpson Limited, London, Ontario, 1967. 298 pages. $3.85. Only prepaid orders can be accepted. M.F.C.

ORTHOPEDICS—A Concise Guide to Clinical Practice:
W. R. MacAusland and R. A. Mayo

The author's purpose is to make available "an inexpensive book covering the field of present day orthopedics." Undoubtedly they have succeeded with fifteen chapters, an excellent appendix. (Joint Measurement), a complete index, and valuable references. The book stresses diagnosis rather than treatment and operative technique, and is well illustrated with drawing and radiographs. Fractures and their complications are omitted. The book is well edited and simple in style. It is highly recommended for both student and practitioner. Little, Brown and Company, Boston, 1965. Distributed in Canada by J. B. Lippincott Company of Canada Ltd., Toronto. 330 pages. $6.50. M.F.C.

BOOKS RECEIVED

The receipt of the following books is acknowledged. Books of particular interest will be reviewed in future issues as space permits. Information on these books will be furnished on request.

The Principles and Practice of Medicine: Sir Stanley Davidson ed., E. S. Livingtone Limited, 8th edition, 1966. 1342 pages. $7.25.

Preventive Medicine: D. W. Clark & B. MacMahon, editors. Little, Brown Company Limited, Boston. Distributed in Canada by J. B. Lippincott Company of Canada Ltd., Toronto. 1967. 897 pages. $9.95.

Psychological Diagnosis in Clinical Practice (with applications in Medicine, Nursing, and Social Work): B. Pope & W. H. Scott. Oxford University Press, Toronto, 1967. 339 pages. $8.80.

Diagnosis and Therapy of the Glaucomas: B. Becker & R. N. Shaffer. C. V. Mosby Company, St. Louis, 1965. 2nd ed. 443 pages. $18.50.

Genetics in Medicine: J. S. Thompson & M. W. Thompson. W. B. Saunders Company, Philadelphia, 1966. Distributed in Canada by McAinsh & Co. Limited, Toronto, 300 pages. $8.10.

RECENT AQUISITIONS BY THE HEALTH SCIENCES CENTRE LIBRARY OF PARTICULAR INTEREST TO MEDICAL STUDENTS

(Abstracted from the October 1967 Bulletin. One Hundred and Sixty books listed.)

CALL NUMBER	AUTHOR	TITLE
QS4.R824f 1966	Ross, Janet S.	Foundations of anatomy and physiology
QS4.S616i 1966	Sinclair, D. C.	An introduction to functional anatomy
QS130.W884g 1967	Woodburne, R. T.	A guide to dissection in gross anatomy
QV177.D779o 1966	Drill, V. A.	Oral contraceptives
QW504.G778i 1964	Gray, D. F.	Immunology; an outline of basic principles, problems and theories concerning the imunological behaviour of man and animals.
QZ4.R636T1 1967	Robbins, S. L. R.	Pathology
QZ17.C976c 1966	Curran, R. C.	Color atlas of histopathology
QZ140.S679p 1967	Sodeman, W. A.	Pathologic physiology; Mechanisms of disease.
W18.G465 1966	Gilbert, L.	Medical State Board examination review book: questions, answers, diagrams from past examinations.
W700.G544m 1966	Glaister, J.	Medical jurisprudence and toxicology
WA110.H651p 1965	Hilleboe, H. E. ed.	Preventive medicine; principles of prevention in the occurrence and progression of disease.
WB100.S428p 1966	Scott, Sir R. B. ed.	Price's textbook of the practice of medicine.
WB141.D742f 1967	Douthwaite, A. H. ed.	French's index of differential diagnosis
WC100.A545c 1966	Anderson, K., m.d.	The clinical practice of bacteriology
WL101.M681e 1966	Mitchell, G. A. G.	The essentials of neuroanatomy
WP100.G798g 1965	Green, T. H.	Gynecology, essentials of clinical practice.

News and Views

Sandra Snyder '69' and Omah Singh '69'.

Hippocratic Council

This year for perhaps the first time, the Council is showing an interest in national as well as local affairs. This interest has taken the form of active participation in the CAMSI National Convention in St. Sauveur, Quebec. From this Convention, Western agreed to direct the national drug appeal in co-operation with Laval, and also to conduct a national summer employment survey in co-operation with Toronto and Manitoba.

The Hippocratic Society was also represented in Toronto at the Standing Committee on Medical Education (SCOME) which discussed medical school curricula, and at the Student Ontario Association (SOMA) which discussed affiliation with the OMA, its advantages and disadvantages.

Participation in these activities marks a significant change in policy here at Western, as the Council has previously remained aloof from national or provincial activities. This I believe has been a change for the best.

On a local level, the Council has produced its first Directory, under the direction of John Evans, '70. Experience with this Directory will indicate that some changes are necessary to produce this more efficiently and more quickly. The Council purchased fourteen football helmets which were undoubtedly responsible for Meds victory in Interfac Football. Meds

At-Home will be held Friday Feb. 2, 1968 and this year may include a banquet with a guest speaker.

Medical school is or can be as good or as bad as you make it. Your contributions and constructive criticisms are always appreciated.

Larry J. Kelly, President,
Hippocratic Society.

Osler Society

The first meeting of the Osler Society for 1967-68 was called to order in the second South Lecture Room of St. Joseph's Hospital by the president Harold Watts.

Dr. Fred Pattison '69'. presented the first paper—"Uncle Granville" which won second prize in the History of Medicine essay contest in 1966, and subsequently was published in the UWO Medical Journal. In this talk, the emphasis was placed on Uncle Granville's notorious exploits as a dedicated anatomist and teacher. This led to his trial on a charge of "Body-snatching". His acquittal was followed by a brilliant and noteworthy career. The second speaker was Mr. Alan Richardson, Assistant Professor of the History of Science Department at UWO. His remarks touched on many subjects: the broad scope of the history of medicine, his desire to augment the history section of the medical school library, his particular interests in anthology and evolution and the cause of the student's aversion to history. This year in the History of Medicine course, Mr. Richardson will act as co-ordinator and lecturer .

The second meeting was held Oct. 31 and on this occasion the speaker was Harold Watts '68. Harold's topic was the life of Sir Frederick Banting in which he stressed Banting's discovery of Insulin and his interest in stimulating research until his untimely death in 1941.

Future meetings will be held on Jan. 30, Feb. 27, and Mar. 26. The speaker program for these meetings promises to be most interesting. Anyone else wishing to present a paper, please contact Sue Ball '69.

Betty Lawrence '69

CAMSI

Convention—Detailed reports on the convention proceedings may be obtained from your junior and senior Camsi reps.

Exhange Programme—Applications for the 1968 summer clerkships in Europe may be obtained by writing directly to: Camsi Exchange Office, 151 Slater St., Ottawa, Ont. the ten dollar application fee should be enclosed. The 1967-68 information booklets have not yet been received.

Summer School—The 1968 Summer School will be held in Jamaica, Aug. 4-31. Cost per student is $100.00. More information to follow.

Alpha Omega Alpha

The first meeting of AOA was held Oct. 21, 1967. Lorne Brandes gave a paper on "the role of the spleen in acute lymphocytic leukemia". Dave Craig spoke on his summer trip with Camsi to Inuvik. Dave showed slides and discussed the various medical and social problems of the North.

Dr. Drucker, Chief of Surgery at Toronto General Hospital spoke at the AOA banquet, November 9, on his views on Medical Education at the Graduate and Undergraduate level. He emphasized his concept of the 'Clinical Scientist" as the teacher of the future. Newly invited members for this year are:

Alumnus member—Dr. T. McLarty
'68 graduates—Lloyd Black, Boyd Hoddinott, Ron Robbins, Glen Wither, Ian Yeats.

'69 graduates—Les Bradley, Dave Henry, Dr. Fred Pattison, Dave Scheifele.

Student Activities

Med's Picnic—The annual Med's picnic was held this year on Sept. 23 at Dreamland, an idyllic little spot set off in the woods near Dorchester, Ont. Two hundred and fifty Medsmen, (actually 125 Medsmen and 125 lovers), met together for an afternoon of baseball and drinking by the shores of Lake Scumanalgae. We were blessed, (the Lord loves doctors), by beautiful weather right up until nightfall when the rains came, (to indicate the Lord's disapproval of Medicare). After wolfing back gallons of cold slaw and potato salad, 400 hot dogs and 400 hamburgs, not to mention many hundreds of "OV" and "50", we all moved into the splendor of the dance hall to laugh and romp together into the wee hours. Meds '71 put on a repulsive skit, but none of the thick-skinned Medsmen seemed to be affected by the vulgarities.

Some lovers blushed, though. Commendations are certainly due to the two faculty members who showed up to view their students in the role of being real people. A good time was had by all.

Coming Events—

1. Meds At-Home—Feb. 2, 1968, Hotel London.
2. Meds Banquet to precede the ball. A return of the rip-roaring, bun-throwing social event of the Medsman's year, after a 2 year absence.
3. Third-fourth year party—April 5, 1968.

R. Birnbaum, '69'

Class News

Class of '68—Congratulations are in order for the Med. School football team.

Of historical interest is the fact that all members of the class survived the trials and tribulations of this year's summer vacation.

"Most of us worked as summer externs in hospitals all over Canada—some in Newfoundland, others in B.C., and still others in the States."

Some worked their way into matrimonial captivity, and as of last month, fourth year even has a husband-and-wife team.
Class executive:-
Honorary class president—Dr. D. H. Cameron
President—Ian Yeats
Vice-President—Daniel Bryer
Secretary-Treasurer—Rick Schmidt
Camsi Representative—Dave Craig
Sports Representative—Don Huband
Meds Merrymakers Rep.—John Stoffman

At present, most of the time in fourth year is spent on posing for grad. pictures, discussing the merits of every teaching hospital in Canada and the U.S., and filling out application forms for internship. Some of the dedicated even manage to attend lectures and clinics.

Class of '69—Congratulations are extended to our gallant members lost from the ranks of the celibate—some of the fallen hope to enter the "blissful state of matrimony" at Christmas, while others eagerly await the summer.

The stork service (mail-order dept.) delivered to Dr. and Mrs. H. Barr on Nov. 8, 1967, a boy, who is still unnamed. We wish to congratulate them on their fourth addition.

Class Executive is:-
Honorary class presidents—Dr. H. Barr and Dr. C. Gowdey
President—Dave Scheifele
Vice-President—Gary Veenman
Secretary-Treasurer—Fred Pattison
Camsi Representative—Doug Holder
Sports Representative—Dave Henry
Meds Merrymakers Reps.—Reid Finlayson and Martin Inwood
Social Representative—Tom Dickson

Class of '70—On Sept. 30, Ron Wexler, Bill Clark, and Henry Rubinstein were part of the contingent which represented Western at the Student Committee on Medical Education (S.C.O.M.E.) at Scarborough College. Dave Spence and Bill Clark, both from Meds '70, were elected to sit on the University Senate as undergraduate representatives.

Congratulations are in order for Frank Bryans who received his M.Sc. in physiology, and Mike Thoburn who became the proud father of a new baby girl on Oct. 18.

The Meds float, which was constructed by the class and directed by John Cox and Morley Mossing, was awarded an honorable mention on the homecoming weekend.

Flash—Dave Spence and Ann Bright, both members of the class, were married on Nov. 11.

Class Executive:-
President—John Evans
Vice-President—Bud Porter
Secretary-Treasurer—Rachel Waugh
Sports Representative—Graeme Gair
Camsi Representative—Dennis Hall
Historian—David Carswell
Tachycardia Rep.—Henry Rubenstein

Class of '71—All news is Bad news at present—i.e. EXAMS.

Class Executive:-
President—Louis Tusz
Vice-President—Baxter Willis
Secretary-Treasurer—Warren Harrison
Sports Representative—Joe Powell
Camsi Representative—David Peachey
Historian—George Emrich
Meds Merrymakes Rep.—Bryan Mitchell.

Meds Wives Club

Double, double toil and trouble;
Fire burns and, caldron bubbles!

A new degree is being offered by the Universtiy of Western Ontario—P.H.T. (Putting Hubby Through). Classes are held the first Wednesday of every month. Class capacity is sixty two. Noted lecturers include: Dr. P. Harding, Dr. R. A. Kinch and Mrs. Winnifred Kite. Projects for the coming year include: Christmas family, cook book, curling, bridge and parties, etc., etc., etc. (*Editors Note:* We will have to ask the husbands what the etc. is!)

Executive:-
President—Nancy Tasker
Vice-President—Sue Hawkins
Secretary—Jane Hoddinott
Treasurer—Janet Inwood
Bulletin Editors—Sue Throne and Mary Jane McKay
Social Convener—Ann Huband.

Dean's Corner

Recent Appointments:-

Dr. F. John Rounthwaite's appointment as Head of the Department of Otology, Rhinology and Laryngology became effective Aug. 1, 1967. Dr. Rounthwaite succeeds Dr. R. E. Greenway, Head of the Department since 1957 who will continue as Clinical Professor and Chief of the E.N.T. service at Victoria Hospital.

Dr. Robert C. Buck has been appointed Chairman of the Department of Anatomy for the Faculties of Medicine and Dentistry. Dr. Buck succeeds Dr. Murray L. Barr who is resigning as Head of the Department to devote full time to teaching and research at Western.

Dr. Carol Buck has been appointed as the first Chairman of a new Department of Community Medicine. The previous Department of Psychiatry and Preventive Medicine has been divided into separate Departments of Psychiatry and of Community Medicine. Dr. G. E. Hobbs, former Head of this Department, has assumed the Headship of the new Department of Psychiatry. The Department of Community Medicine will consist of a sub-department of Epidemiology and Preventive Medicine of which Dr. Buck will also head, and a sub-department of Family Medicine. The Head of the sub-department of Family Medicine has not been appointed as yet.

Dr. D. C. Williams, President and Vice-Chancellor has announced the appointments of 4 Associate Professors in Western's faculty of Medicine this fall.

—Dr. D. D. Webling as Associate Professor of Biochemistry. Before coming to Western, Dr. Webling was a member of the Departments of Physiology and Pharmacology at the University of Adelaide and worked for a year in Switzerland.
—Dr. J. B. Critz as Associate Professor of Physiology. Dr. Critz was formerly Associate Professor of Physiology at the University of South Dakota.
—Dr. M. D. Haust as Associate Professor of Pathology. Dr. Haust comes from Kingston where she was Associate Professor of Pathology at Queens.
—Dr. E. R. Tustanoff as Associate Professor of Pathological Chemistry. Dr. Tustanoff was formerly Associate Professor of Biochemistry at McMaster University.

Senate Elections on October 23, 1967—
Undergraduates—
Bill Clark '70'—1 year term
Dave Spence '70'—1 year term
Faculty of Medicine—
J. C. Rathbun, Prof., Dept. of Pediatrics—2 year term
C. W. Gowdy, Prof., Dept. of Pharmacology—1 year term
H. B. Stewart, Prof., Dept. of Biochemistry—1 year term
Faculty of Dentistry—
J. A. F. Stevenson, Prof., Dept. of Physiology—2 year term

Announcement—Dr. Bocking has announced that all Medical Council Examinations this year will take the form of Multiple Choice.

Government—In early November, the Honorable William G. Davis, Minister of University Affairs, announced the appointment of four new members to the Committee on University Affairs. Dr. Roger J. Rossiter, Dean of the Faculty of Graduate Studies and Prof. of Biochemistry at Western is one of the new members. The Committee was established in 1961 as an advisory body to the Minister of University Affairs and the Government of Ontario on matters pertaining to higher education.

A physician got a frantic call at midnight from a very distressed father who said his son had swallowed a whole tube of contraceptive foam. Could the doctor come to the house right away.

As the good doctor was hurriedly dressing the phone rang again and the same father in a very relieved voice said, "Don't worry Doc, I've found another tube."

Sports Report

THE MED'S FOOTBALL TEAM

"Blessed are the meek"—for they shall inherit an Inter-Faculty Championship.

The Team for the 1967 Season.

Defense:				
G. Maier	'68'	5 year vet.	Corner Linebacker	Agitation Personified
B. Heersink	'68'	2 year vet.	Safety	Old Reliable
L. Kelly	'68'	2 year vet.	Tackle	The Insurmountable Barrier
S. Moore	'69'	2 year vet.	Linebacker	The Spoiler
R. Brenchley	'69'	2 year vet.	Tackle	A Real Tiger
D. Dolden	'69'	Rookie	Safety	Mr. Interception
D. Adams	'69'	Rookie	Tackle	Hollywood's Gift to Football
J. Holmes	'70'	2 year vet.	Linebacker	Terror of the Opposition
Offense:				
R. Schmidt	'68'	4 year vet.	Coach—End	The Voice of Experience
I. Yeats	'68'	5 year vet.	Half	Mr. Agile
D. Bryer	'68'	3 year vet.	Q.B.	The Deadly Rifle
D. Spence	'70'	2 year vet.	Centre	All Round
M. Thoburn	'70'	Rookie	Centre	Clark Kent of Football
G. Gair	'70'	2 year vet.	End	Fastest Man Alive
B. Porter	'70'	Rookie	Q.B.	A Faker
B. Wall	'70'	Rookie	End	Fellow with the Glass Shoulder
P. Mitchell	'71'	Rookie	Half	The Med's Expressman
P. Scheldrick	'71'	Rookie	Half	Sticky Fingers
C. Sun	'71'	Rookie	Q.B.	Small but Deadly

RECORD OF GAMES PLAYED

Med's 8 - Huron 1
Med's 24 - College of Science 0
Med's 24 - Engineer's 16
Med's 36 - Engineer's 0
Med's 19 - King's College 6

Game with University College won by default.

Final—Med's 13 - Engineer's 0.

This is the third consecutive Inter-Faculty Championship in a row for Med's. Congratulations to the bruisers of the school.

Homecoming 1967

Second Year by tradition always builds the Medical School float for the Homecoming parade. This year the Class of '70' under the able direction of John Cox won an 'Honourable Mention' for their construction. Well Done.

ANESTHESIA AND OBSTETRICS:

In the hospital, the removal of a brain tumor calls for a surgeon with two assistants, a scrub nurse, and two circulating nurses, and anesthetist and assistant. The patient's prognosis is about eighteen months; the hospital investment is tremendous. The birth of a new baby at 4 a.m. more often is attended by one physician, no scrub nurse, one circulating nurse, and inadequate or haphazard anesthesia coverage. The combined prognosis of the two patients, mother and child, is over a hundred years; the hospital investment, minimal.

Barnes, A. C., Hazards of being born. John Hopk. Mag. 15:1, 1963.

Alumni News

Our "Hallowed Halls" resounded with footsteps from the past as the classes of '27, '32, '37, '47 and '62 returned to their old Alma Mater for the Seventh Annual Homecoming Medical Conference.

Our eminent guests were not difficult to to distinguish. A camera slung over one shoulder was their trademark.

Without exception, each visiting physician surveyed our "Masterpiece" in the front hall, but none dared to venture—"What is it?"

The Medical Conference itself was a smashing success! The Morning Session was devoted to Medical topics and the following papers were presented:

"Nonspecific Ulcer of the Intestine",
Dr. C. G. Morlock, '32

"The Emotional Ovary"
Dr. C. A. Woolever, '47

"The Stream Flows Swiftly"
Dr. F. F. A. Rawling, '37

"Experimental Approach to Knee Injuries"
Dr. J. C. Kennedy, '42

The Afternoon Theme dealt with Medicine and its practice in several of the under-developed countries of the world.

Westerners abroad:

"Medicine in Afghanistan"
Dr. D. N. Maucaulay, '62

"Experiences at a Rural Mission Hospital in India"
Dr. A. K. Carter, '47

"Tanzania in Transition"
Dr. Paul McKenzie, '62

Surgery in Africa—as seen by Sims Travelling Professor
Dr. A. D. McLachlin, '32

Each man dramatically presented his topic through the medium of slides and physicians and students alike were generally appalled by the Medical standards in the countries dealt with.

Alumni are no exception to the rule that "All work and no play . . . ". Hence Saturday evening was spent partying.

Word has it that the class of '62 are still young at heart. Students had trouble keeping up with them at AKK on the Saturday night.

Only hope none of them were called out in the night—it would have been difficult to tell who needed the most treatment, the doctor or the patient ! !

All in all the weekend was both informative and a great deal of fun for everybody concerned.

We will be looking forward to seeing an even greater number of Alumni at the Eighth Homecoming Medical Conference next year.

THE MICROBE

The microbe is so very small
You cannot make him out at all,
But many sanguine people hope
To see him through a microscope.
His jointed tongue that lies beneath
A hundred curious rows of teeth;
His seven tuften tails with lots
of loveley pink and purple dots
On each of which a pattern stands
Composed of fourty separate bands;
His eyebrows of a tender green;
All these have never yet been seen—
But scientists who ought to know
Assure us that it must be so . . .
Oh! let us never, never doubt
What no body is sure about.

O.S.M.T. Newsletter

If you are in need of extra cash for alimony payments, campus parking tickets or child maintenance court orders remember you can get FIFTY DOLLARS by simply submitting the best paper in the 1967-1868 Medical Journal.

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ALUMNI ASSOCIATION
PRESENTS

WORLD FAMOUS ARTISTS

1967-68 ALUMNI HALL GREAT ARTISTS' CONCERTS

1968

JANUARY 13: CARLOS MONTOYA, guitarist

FEBRUARY 14: DETROIT SYMPHONY ORCHESTRA
SIXTEN EHRLING conducting

SPRING FESTIVAL '68

APRIL 6: THE CLEVELAND ORCHESTRA
LOUIS LANE conducting
LEON FLEISHER, soloist

APRIL 7: THE CLEVELAND ORCHESTRA
DR. GEORGE SZELL conducting

★ ★ ★

SINGLE TICKETS ($5, $4, $3) FOR ALL CONCERTS WILL BE AVAILABLE AT WORDS AND MUSIC, EXCLUSIVE BOX OFFICE, 426 RICHMOND STREET, LONDON.
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ANNUAL MEDS-AT-HOME

FEBRUARY 2nd, 1968

HOTEL LONDON

Bob Birnbaum, '69'
Social Vice-President

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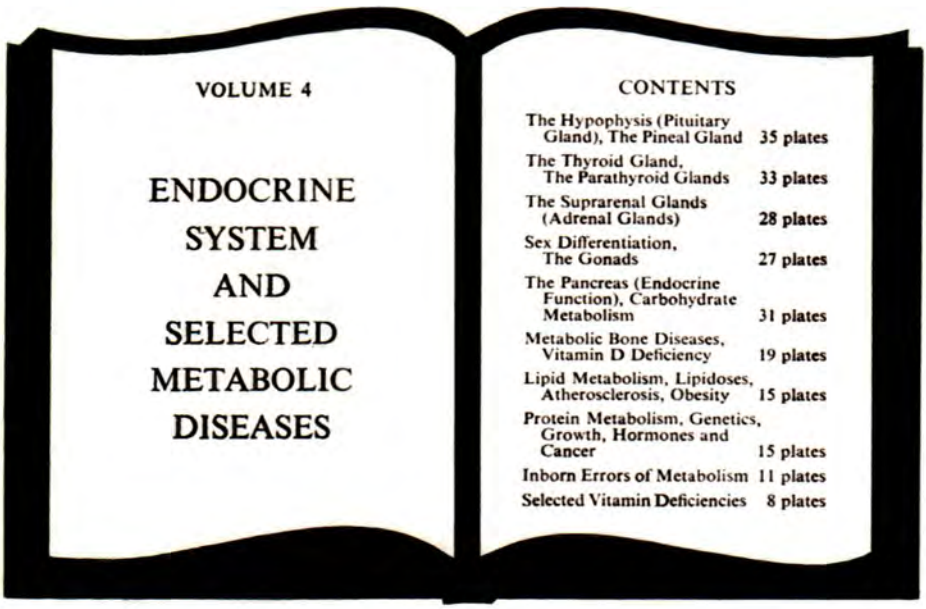

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